# ARCHAEOLOGIA

OR

# MISCELLANEOUS TRACTS

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PUBLISHED BY THE

SOCIETY OF ANTIQUARIES OF LONDON

VOLUME LXIX

PRINTED AT OXFORD

BY FREDERICK HALL FOR

THE SOCIETY OF ANTIQUARIES

AND SOLD AT THE SOCIETY'S APARTMENTS IN BURLINGTON HOUSE, LONDON

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## I.—*Specimens from the Layton Collection, in Brentford Public Library, described by* Reginald A. Smith, *Esq., F.S.A.*

Read 13th June 1918.

Mr. Thomas Layton died on 4th September 1911 at the advanced age of ninety-two years, having been a Fellow of this Society since 1868.[1] He had contributed to the Bronze Age Exhibition at Somerset House in 1872, and in 1883 gave a remarkable Roman sword and sheath (fig. 25) to the British Museum; but otherwise his energies were devoted to collecting, unhappily with little method or discretion, and the task of carrying out the terms of his will was anything but a formality. Most of his antiquities came to light during dredging operations in the Thames at Kew, where he resided, and these were left to the Brentford Public Library as the nucleus of a Layton museum. The Librarian, Mr. F. A. Turner, has cleaned, sorted, and exhibited the specimens with infinite pains and considerable success; and it is to him and the Brentford Library Committee that we are indebted for the present exhibition and for permission to examine and describe the principal items of the collection.

The Stone Age section is proportionately good and contains some exceptional specimens, but is almost exclusively Neolithic. Of the hand-axes few have the locality recorded, and, except one from Southall, these come from gravel at Hanwell, the nearest high ground on the north bank of the Thames, but two miles north-west of Kew Bridge. They may all be assigned to the Chelles period, best represented in the middle gravel of the 100 ft. terrace at Swanscombe, Kent, though found at Hanwell about 70–80 ft. O.D. and therefore approximately 60 ft. above the nearest point of the river. It will be sufficient in the circumstances to refer to *Proc. Geologists' Association*, vol. xiv, pp. 155, 157, and vol. x, p. 368, for the geological aspect of the site, but evidence of occupation in the later Drift period (St. Acheul and Le Moustier phases) is abundant in the collections of our Fellow Mr. Garraway Rice, Mr. F. Sadler of Acton, and Mr. W. Seward of Hanwell (*Journ. Brit. Arch. Assoc.*, N.S. xiii, 123).

[1] An obituary notice from the pen of Sir Hercules Read is printed in *Proceedings*, xxiv, 232.

A flake with facetted butt (fig. 1) is characteristic of the Northfleet industry described in *Archaeologia*, lxii, 515, and is quite unrolled, but the exact site is not recorded. Apart from many finds elsewhere in south-east England, this type has now been found at many points in the Thames area, as at Crayford, Erith, Barking road, Plaistow, Stoke Newington, Hanwell, Dawley, West Drayton, Yiewsley, Windsor, Hitcham, and in the Wey valley at Farnham. These date from the period of Le Moustier, but there is at present little chronological evidence as to the 'Thames pick', of which a fine specimen is here illustrated (fig. 2). This peculiar form of implement has several varieties and has been recently discussed in *Proceedings*, xxx, 29. Abroad it is represented by the Campigny *pic* of northern France, which is also found in the early shell-mounds of Denmark; but cases of discovery in gravel suggest that the British specimens are of an earlier date than is generally allowed. One variety seems to be represented in the Nöstvet group (W. C. Brögger, *Standliniens Beliggenhed under Stenalderen*, pl. iv), with steep end for planing, like one found in gravel at Boscombe, Hants. The Layton example, from Brentford, has an irregular lozenge section, sharp at both ends: others show a pointed oval or even D-shaped section, and many have a transverse flake on one face at the cutting-edge, a feature recalling the shell-mound axe (*tranchet*).

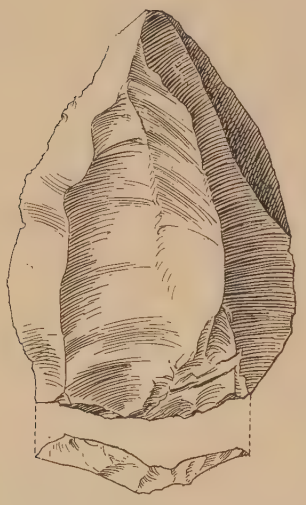

Fig. 1. Flint flake with facetted butt (Levallois type). (⅔)

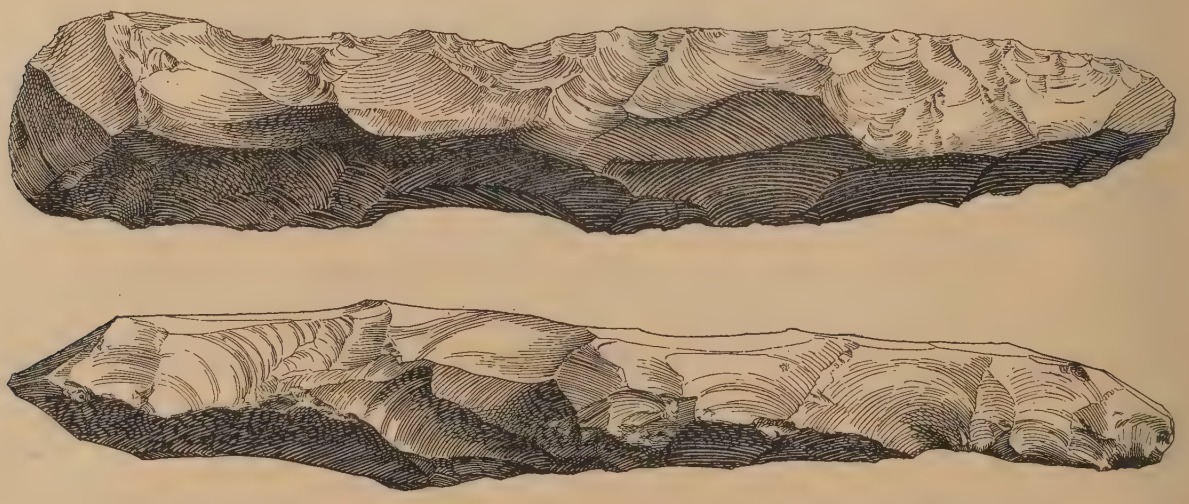

Fig. 2. 'Thames pick' of flint (front and side views). (½)

There are several other typical examples of the pick in the collection, but hundreds have been found in the lower Thames and on the North and South Downs. Perhaps the longest is one in the Salisbury Museum, measuring 14 in.; it was found 4 ft. deep in peaty soil at Hurdcott, eight miles west of Salisbury, and is patinated white.

A curious flint implement of uncertain date (fig. 3) is not unique but difficult to explain. The extreme measurements from point to point are 7·3 in., 6·7 in., and 6·9 in., and the maximum thickness is $1\frac{3}{4}$ in., colour black and grey, with lustrous surface. It is labelled Southall, which is approximately halfway between the sites of two other examples—one from the Isle of Wight

Fig. 3. Flint implement, Southall, Middlesex. ($\frac{1}{2}$)

Fig. 4. Flint celt, Thames at Waterloo Bridge. ($\frac{1}{2}$)

(*Arch. Journ.* xxx, 29, and Evans, *Stone Implements*, second edition, p. 78, fig. 25 A, where the scale is given as $\frac{1}{2}$ instead of $\frac{1}{3}$) and the other from Cavenham, Suffolk, in the collection of Mr. W. C. Wells, with a maximum of $3\frac{1}{4}$ in. from point to point. In that district another has been recorded, 2·8 in. long, found at Grime's Graves, Weeting, Norfolk, during the excavations carried out for the Prehistoric Society of East Anglia in 1914 (*Report*, p. 182); but it differs in having one flat face.

Another peculiar specimen of flint (fig. 4), from the Thames at Waterloo Bridge, is of celt-like form but with incurved sides; both faces are flaked all over and the section is a pointed oval, the cutting-edge being at the broader end, but there is an edge all round. Its length is $6\frac{1}{2}$ in. and it was

probably hafted, but any estimate of its date would at present be merely conjectural, and it is more to the point to find parallels. The British Museum acquired one 4·7 in. long in 1861 from Caesar's Camp, Farnham, Surrey, and another from the Thames in 1913, measuring $6\frac{3}{4}$ in. A similar specimen (Evans, fig. 21), of which there are casts in the British and Salisbury Museums, $6\frac{1}{8}$ in. long, was found about 1859 near Bournemouth 'with a damaged polished hatchet of similar type'. In 1870 both these were in the possession of Rev. John Austen, of Hensbury, near Wimborne. In the Pitt-Rivers Museum at Oxford is one about $5\frac{3}{4}$ in. long from West Harling, Norfolk, and in the late Knut Stjerna's *Före Hällkisttiden* (*Antiquarisk Tidskrift för Sverige*, part 19, no. 2), p. 56, fig. 62, one is illustrated from Denmark measuring no less than 7·2 in. Stjerna suggested a British origin, in the last phase of the Neolithic (cist-grave period), and his remark that the spreading edge points to a metal prototype applies with equal force to the others mentioned above, but none has the sides incurved to such an extent as the Layton specimen.

Two thin discs of black flint with polished edges, measuring 4·3 in. and 3·1 in. across, are worthy of mention as examples of a type supposed to have been used for flaying animals; but the Neolithic period is best represented by over thirty celts of various patterns. Without corroboration it would be unwise to adopt the Scandinavian classification in its entirety, but to judge by foreign examples the pointed-butt celt (as one from Strand-on-the-Green, Kew, 6·1 in. long) immediately precedes the Megalithic period, and the thin-butted celt (as one from Hounslow, also 6·1 in. long) dates from the earliest Megalithic or Dolmen period. A fine specimen of this type measures $11\frac{3}{8}$ in., and the practice of squaring the side-edges is said to have been derived from Britain. By Scandinavian standards an axe-hammer with hollowed top and bottom faces (in which is the perforation) would belong to the passage-grave or chambered barrow period, and the four others, with flat or even convex faces, would belong to the last stage of the Neolithic, when Scandinavian burials were made in cists and Britain was in the Bronze Age.

There is an English pointed-oval type of flint that might be compared, and even confused, with the leaf-shaped blades of Solutré, dating from the Palaeolithic cave-period. The type is best represented at the British Museum, but the Layton collection contains no less than seven, here illustrated on pl. I. Only two have definite localities—no. 1 coming from Chiswick, and the other (no. 6) from the Thames at Kew Bridge, about 3 miles farther up the river; but there is little doubt that all seven were found within a few miles of Kew. Both edges are sharp and the flaking is all over both faces, which are slightly convex, the work being of the highest order in every respect. The longest and most perfect is no. 2, which is 7 in. long; and on nos. 4 and 6 can be seen lateral

notches which are supposed to have facilitated binding to a split shaft to form a spear-head. This feature also appears in the Solutré period (specimen from Laugerie Haute,[1] in British Museum), but does not invalidate the ascription of this series to the British Neolithic. Two fine specimens—notched, from Prickwillow near Ely, and plain, from Jackdaw Hill, near Leighton Buzzard—are figured in the *Report of the Cambridge Museum of Archaeology*, 1909, pl. ii, but these and many others are isolated finds and evidence of date is anything but abundant. A fine specimen, with the same white patina as other flints from these burials, is in the national collection from Seven Barrows, on the Berkshire downs, and is figured in Evans, second edition, 349, fig. 264. Other varieties of this type are his figs. 265 and 266, and several references are given in *Archaeologia*, xliii, 413, by Thurnam, who was in favour of a Neolithic date.

Another example indicating a late Neolithic (or possibly early Bronze) date was found with a flint strike-a-light and lump of pyrites, a beaker, and two jet buttons, one with V-shaped perforation, in a barrow at Middleton-on-the-Wolds, E. R. Yorks. (*East Riding Antiquarian Transactions*, xv, pl. ii, 103).

A complete list cannot be attempted here, but most of the evidence is contained in the following references: Mortimer, *Burial-mounds*, etc., p. 91, fig. 209; p. 209, pl. lxvii, fig. 511; p. 217, pl. lxxiv, fig. 555; Hoare, *Ancient Wilts.*, i, plates 17 and 19; Bateman, *Vestiges*, etc., p. 59, and *Ten Years' Diggings*, pp. 52, 167; Jewitt, *Grave-mounds*, etc., figs. 154, 155; Abercromby, *Study of Bronze Age Pottery*, i, 52; and most recently in *Proceedings*, xxxii.

A notched specimen 5·2 in. long is published from Scania, where it would be regarded as Neolithic (*Fornvännen*, 1909, p. 239, fig. 32), and a lance-head of the same description, dating from the Dolmen period in France, is figured by Déchelette (*Manuel*, i, 498, fig. 174, no. 6). The thickening of some of the British examples at the more tapering end (evidently the butt-end) seems to prove a connexion with Scandinavia in the late Neolithic, for which there is indeed other evidence. The exact chronological stage would be the latter part of the chambered barrow period, as the later forms of the flint dagger, with definite handles, belong to the last division of the Scandinavian Neolithic, the cist-grave period. Examples of all types are given by Dr. Sophus Müller in *Nordiske Fortidsminder*, vol. i.

To judge by the majority of cases, this type of dagger is found with the skeletons of males in association with pottery beakers and jet or shale in the form of rings or buttons with V-shaped perforations. The absence of bronze or even copper points to a Neolithic date in Britain, but there is one find in connexion with a cremated burial (at Three Lows, Wetton, Derbyshire) that

[1] Figured in *Reliquiae Aquitanicae*, pl. xxxii, fig. 5: it is stated on p. 133 of the Description that 'the large notches on the edges are of recent origin'.

suggests the later Bronze Age. To account for this anomaly there are three possible hypotheses: (i) an earlier burial was disturbed for the cremated burial,

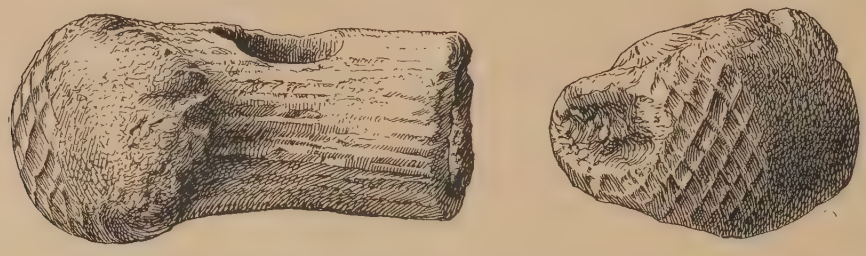

Fig. 5. Hammer of antler (side and end views), showing facets. (⅔)

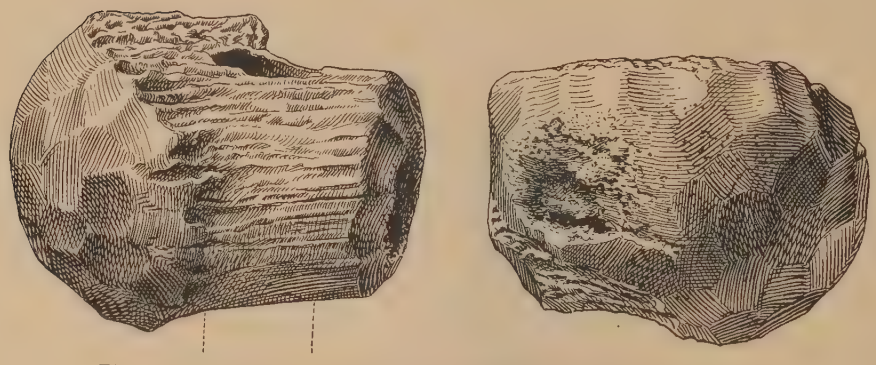

Fig. 6. Hammer of antler (side and end views), showing facets. (⅔)

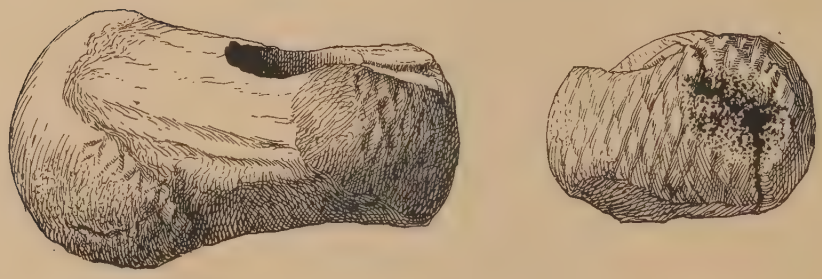

Fig. 7. Hammer of antler (side and end views), from Teddington. (⅔)

(ii) cremation may have been practised in the Neolithic period, and (iii) this type of dagger may have been in use all through the Bronze Age.

Two perforated implements[1] made of the basal portion of deer-antler are as important as they are interesting, and give a clue to the origin of a Bronze

[1] Several with their original hafts, found in Switzerland, are illustrated in Report of Lons-le-Saunier Congress (Prehistoric Society of France), 1913, p. 903.

Age type. One of them (fig. 5), 3·9 in. long, has the distal end hollowed as though intended to hold a stone implement, in the same way as the antler-sockets of the Swiss lake-dwellings, whereas the second (fig. 6), 3·5 in. in length, has the cancellous tissue intact and is either unfinished or was never intended to hold a stone implement. Their chief interest, however, lies in the lattice-pattern elaborately carved on the thicker end after the removal of the crown or burr of the antler; and in this respect they closely resemble a specimen in the British Museum from Teddington, $4\frac{1}{2}$ in. long (fig. 7). Though differently executed, the design is the same in all, and has several parallels abroad, of the Neolithic period. One that seems to reveal the origin of the design was among the remarkable finds at Brabrand in Denmark, one of the earliest inhabited sites in Scandinavia (*Mémoires de la Société royale des Antiquaires du Nord*, 1902–1907, p. 183, fig. 5). Here the distal end is imperfect, and the shaft is ornamented with incised lozenges, both in a row and in close formation. Diaper designs of dotted lines also occur in the Shell-mound period (*op. cit.*, 1896–1901, pp. 100–2), and Déchelette (*Manuel*, i, 534) quotes other cases, to which may be added *L'Homme préhistorique*, 1906, p. 76, and a perforated axe-head in Amiens museum from the Somme turbaries, which has the surface covered with wart-like projections. A small area of scale pattern also survives on an axe-head with trunnions from the Stavanger district of Norway, figured in Rygh's *Norske Oldsager*, fig. 42.

But there are other analogies in Britain which have been brought together by the Hon. J. Abercromby in *Man*, 1906, no. 44, to support his theory that such objects were used as stamps for making coloured impressions on the skin (*pintaderas*). In a Neolithic burial near Biggin, Derbyshire, was found a hammer-head of red deer's antler, with one end rounded and polished and the other cut into a diamond pattern (originally published in Bateman's *Vestiges of the Antiquities of Derbyshire*, p. 42). It is evident that this was never intended to hold a stone implement, but was used as a mace-head; and that purpose can be traced through the Bronze Age. In the absence of other indications, it may be laid down as a rule that in the case of stone implements the perforation was of hour-glass form in the Neolithic period (begun from both faces) and of cylindrical form in the Bronze Age (as though executed with a metal cylinder). Examples of the stone mace-head that has been called the 'pestle' type (Brit. Mus. *Stone Age Guide*, second edition, p. 122) have frequently been found in Britain and Ireland, and one of flint is included in the Layton collection (pl. I, fig. 9), the natural perforation having been adjusted for hafting.[1] The surface

[1] Other cases in Evans, *Stone Implements*, 2nd ed., pp. 225, 227; and close parallels in Manchester Museum, from the Thames at Hammersmith, and in the Ashmolean Museum, from the Thames at Windsor.

in this case is plain,[1] but other rocks were often used[2] and the best-known example, found at Maesmore, Corwen, Merionethshire, and now at Edinburgh, is of white chalcedony covered with a lattice pattern that forcibly recalls the antler implements already mentioned. The workmanship of the best 'pestle mace-heads points unmistakably to the Bronze Age, and it is therefore legitimate to regard them as elaborate copies, both in form and ornament, of the Neolithic implement. No other explanation of the 'pestle' has ever been given, and its resemblance to the base of a deer's antler is probably more than accidental. Evidence of the date of such antler-maces is afforded by the discovery of one in a round barrow of the Towthorpe group, E. R. Yorks., with an unburnt skeleton, a lozenge arrowhead of flint, and a half-polished celt (Mortimer, *Burial-mounds*, etc., p. 28, figs. 63, 64, and 56).

To the references given by Evans (second edition, p. 226) for the Maesmore specimen may be added Dr. Joseph Anderson's article on four of the type in *Proc. Soc. Ant. Scot.*, xliii, 377, figs. 1–4; the other three being from Airdens, near Bonar Bridge, Sutherlandshire, of pale chalcedonic quartz or hornstone; Urquhart, Elginshire, of coarser quartz; and Quarnford, Staffs., of hornstone (*Antiquary*, xxvii, 99), the last two having only part of the surface covered with lattice ornament. He adds that plain specimens have been found in England associated with burials containing flat bronze axes, several varieties of tanged dagger-blades and pins of bronze; and refers to the diamond pattern often seen along the side-edges of flat bronze celts (as Evans, *Bronze*, figs. 4 and 32). In his opinion these elaborate stone hammers date from an advanced period of the Bronze Age.

A remarkable stone implement belonging to what has been called the 'cushion' type is figured on pl. I, fig. 8. The curator of the Museum of Practical Geology pronounces the material a silicified volcanic ash, probably derived from an erratic boulder. It is handsomely banded in black and white and polished all over: the transverse section is oval and the ends not sharp but rounded.[3] The perforation is cylindrical, and the perfect boring of such hard stone shows considerable skill. This method is an advance on the hour-glass perforation of Neolithic times, and has been considered the hall-mark of Bronze Age work in stone. The implement cannot have been used for cutting, and must therefore be classed as a mace, probably carried as an ornamental weapon after the introduction of metal. Though a rarity in respect of its form and material, it is by no means unique, and examples of the same pattern have

[1] Like one from the material of a round barrow, figured by J. R. Mortimer (*Burial-mounds of East Yorks.*, pl. xlvi, fig. 373, see p. 140).

[2] One of basalt was found in the Thames at Reading (*V. C. H. Berks*, i, 177, fig. 8); another of red quartzite with white veins at Rafford, Elginshire (*Proc. Soc. Ant. Scot.*, xxii, 353).

[3] Rather an unexpected feature, but there are several blunt-edged axes in Dr. Sturge's collection.

FLINT DAGGERS (ABOUT $\frac{1}{2}$) AND STONE HAMMER-HEADS ($\frac{3}{4}$): LAYTON COLLECTION

*Published by the Society of Antiquaries of London*, 1920

DAGGERS, SPEAR-HEADS AND SICKLE FROM THE THAMES (NEARLY ½)

*Published by the Society of Antiquaries of London*, 1920

been found in the extreme north of Britain; hence they do not belong to a local industry. A specimen added to the Christy collection (British Museum) in 1890 was found at Twickenham. It is of the same banded stone and measures 4·4 in. by 1·8 in., the perforation being 1·2 in. through. Two views of it are given in the British Museum *Stone Age Guide* (second edition), 122, fig. 133.

Dr. Allen Sturge had one in the same striped material from Caithness, $4\frac{1}{4}$ in. long; and another of coarser stone but with sharper ends, originally in the Roots collection from the Thames, is in the British Museum, as well as a greyish slaty specimen from the Thames at Hammersmith. Sir John Evans figured the type from a barrow in Shetland (his fig. 147) and mentions others

Fig. 8. Beakers of pottery. ($\frac{1}{3}$)

also in the Edinburgh Museum, from Orkney and Perthshire; and there are two from the Thames in the London Museum. A hint as to the origin of the type is given by an oval specimen of smooth red stone approaching a cylinder, which suggests a pebble already worn to the shape required and turned into a mace-head by perforation; but this came from a grave in Co. Wexford (British Museum).

The transition to the age of metal is illustrated by three beakers or drinking-vessels of pottery (fig. 8), which abroad are generally assigned to the Neolithic but in Britain seem to survive in the Early Bronze Age. This and the other sepulchral types have been fully treated by the Hon. John Abercromby (*Study of Bronze Age Pottery*, etc., 1912), but there are special features to be noted here. The best is undoubtedly that on the right, 6·1 in. high, with the

chevrons and girth-lines inlaid with a white substance (further noticed below), and a vertical collar at the top, surmounting the spreading zone that generally reaches to the lip. The design is carried out by means of a notched stick resembling a comb and producing at one application to the clay before baking a row of shallow indentations like hyphens. There is a cruciform design on the base of this beaker, like one illustrated by Mortimer (*Burial-mounds*, etc.,

Fig. 9. Portion of 'food-vessel', Thames at Wandsworth.

pl. xiii, fig. 102), but the equal armed cross was a common ornamental motive in prehistoric times: see, for example, G. de Mortillet, *Le signe de la croix avant le christianisme* (1866), and Déchelette, *Le culte du soleil* (*Revue archéologique*, 1909) and his *Manuel*, ii, 415, also *Archiv für Anthropologie*, xx, 17, for examples between the Oder and Elbe. It is found on all four types of Bronze Age ware in Britain,[1] and its occurrence on the bottom of pottery is discussed by Abercromby, *Study of Bronze Age Pottery*, i, 79.

[1] Greenwell, *British Barrows*, index under 'Cross'; Thurnam in *Archaeologia*, xliii, 370, 384, 398.

The middle beaker is of more ordinary form and decoration and comes from the Thames at Old England near Brentford, a locality rich in antiquities of many periods and probably one of the principal crossings of the river. It is 8 in. high and has the surface covered with vertical finger-nail marks in irregular zones.

The third beaker (left) is of unusual oval form, $6\frac{3}{4}$ in. high with zones of dotted lines and herring-bone pattern, all produced with a wooden comb as mentioned above. The eastern counties alone seem to produce this type, which is best represented from Suffolk in the British Museum (*Bronze Age Guide*, fig. 26). Abercromby (vol. i, p. 26, pl. x, figs. 86, 87) says 'it is not impossible that these represent the domestic pottery of East Anglia at a latish period in the history of the beaker'. That beakers did also serve as domestic vessels is clear from several discoveries (e.g. *Archaeologia*, lxii, 338). A smaller beaker comes from the Thames at Hammersmith.

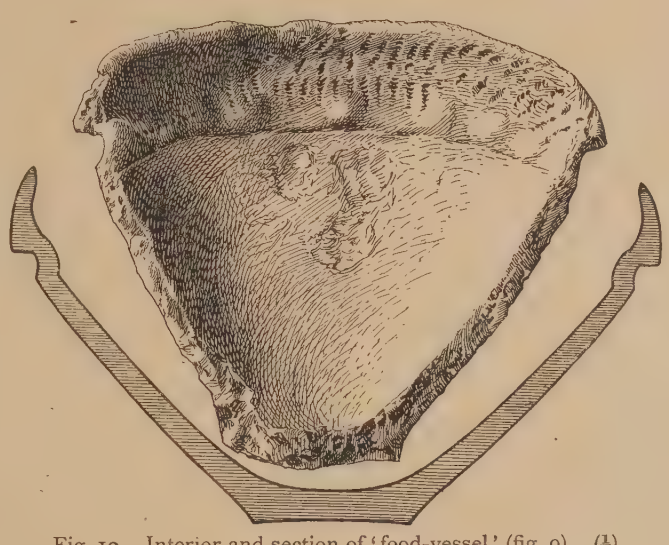

Fig. 10. Interior and section of 'food-vessel' (fig. 9). ($\frac{1}{2}$)

The pottery fragment next illustrated (fig. 9) was found in 1885 in the Thames at Wandsworth, near Hammersmith Bridge, and belongs to the food-vessel type, the second of the four main Bronze Age types in Britain, but has peculiarities of considerable interest. The height is nearly 4 in. and the extreme diameter is calculated to be 7·4 in., enough being preserved to make the profile certain (fig. 10). The sides are 0·3 in. thick, and the ware is good, with some grit, the outer surface and core being black and the inner face brown. The lip has a bold moulding and is impressed inside and out with tilted chevrons or herring-bone of what may be called 'maggot' pattern produced by impressing a thin cord closely wound round a thicker one.[1] In the hollow below, cavities have been produced by stabbing at intervals of about 1 in. (centre to centre), with corresponding bosses inside; while the body has been covered with curved lines produced with a pointed stick, but owing to a jerky motion of the hand, the lines have a notched appearance, resembling twisted thong impressions.

[1] Described by Dr. Sophus Müller, *Mémoires de la Société des Antiquaires du Nord*, 1914–15, p. 73.

All three methods of decoration are unusual about the middle of the Bronze Age, to which the vessel would naturally be attributed. The hollow moulding recalls the Neolithic bowl best exemplified in the Mortlake specimen now in the British Museum (*Stone Age Guide*, second edition, 132, fig. 156; *Archaeologia*, lxii, pl. xxxvii, fig. 3), which also has rows of herring-bone ornament, but produced with a twisted thong. The same design with 'maggot' impressions is found on Neolithic pottery[1] of the Mortlake type found in the long-barrow at West Kennet, Wilts. (*Archaeologia*, lxii, 343, fig. 7); and the white filling, of which traces remain, is well represented in the British Bronze Age though more often adopted abroad and from an earlier date. The subject has been fully treated by Moriz Wosinsky, *Die inkrustierte Keramik der Stein- und Bronzezeit* (1904).

The notched lines on the body, in sets of irregular curves, are quite unlike British ware either of the Neolithic or Bronze Age, and forcibly suggest a remote connexion with the ribbon-ware (Bandkeramik) of the Continent. This type of pottery is not found in the British Isles (Déchelette, *Manuel*, i, 553), but reached as far in our direction as the north of France, so that a feeble imitation of it would not be surprising on the Thames; but the cases quoted by Déchelette have nothing in common with the present specimen.

Such curved lines are quite exceptional in the Bronze Age of Britain, and on that account two from round-barrows in Yorkshire may be quoted (Mortimer, *Burial-mounds*, etc., pl. xxv, fig. 201, and fig. 1012); but the three cases have very little in common.

Pitted ornament like that in the hollow moulding of this fragment has been discussed in the *Archaeologia* paper referred to above, where reference is made to parallels in Finland and Sweden, and an illustration is given of a Peterborough specimen with pitted ornament below an incurved lip very like the Layton specimen, though the body ornament is quite distinct. The occurrence of two groups of pottery at Peterborough points to the transition from Neolithic to Bronze Age style.

In addition to the parallels quoted, reference may be made to pit markings on pottery from southern Sweden, apparently of the chambered barrow period, illustrated in *Fornvännen*, 1910, p. 58, fig. 53; to Swedish examples illustrated in Stjerna's *Före Hällkisttiden*, pp. 77, 84; and to a Neolithic vase, with a rude representation of the human figure, illustrated in *Archiv für Anthropologie*, etc., N.S., vol. iii, 294, pl. xv, from the shore of Lake Ilmen, Novgorod, Russia. Though this method of decoration seems to be characteristic of the Neolithic

[1] Also apparently on pottery of the Bronze Age: e. g. a food-vessel from barrow ccxlii at Folkton, E. R. Yorks., and a four-footed vase from Amotherby, N. R. Yorks., both in the Greenwell collection, British Museum.

period in certain areas, it was evidently not unknown in later times, witness a large cinerary urn in the Greenwell collection at the British Museum from Kirkwhelpington, Northumberland (barrow ccxi), which should date from the latter part of the Bronze Age.

All the main types of bronze celts are well represented, but only a few need be specified. Two of the socketed variety with loops retain on either face a pair of crescents in relief that are generally regarded as survivals, as ornamental features, of the curves traced by the arched wings of an earlier form of celt. One socketed specimen with square mouth still contains some

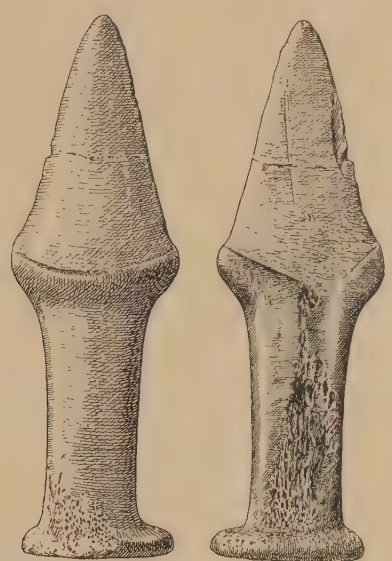

Fig. 11. Bone dagger (front and back views). ($\frac{1}{2}$)

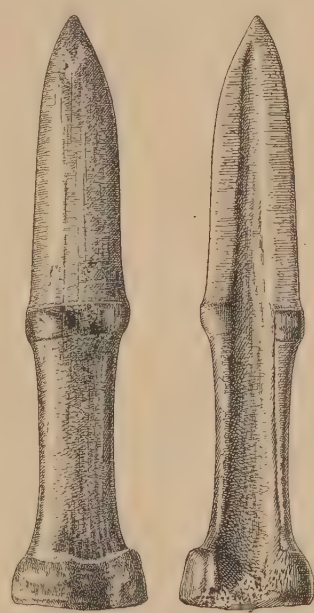

Fig. 12. Bone dagger (front and back views). ($\frac{1}{2}$)

of the wooden haft, and a smaller variety is best represented in Jersey and the opposite coast of France. One of two with ornamented faces has already been illustrated in *Proceedings*, v, 400;[1] and a less common form of the socketed celt has a spreading edge and facetted body, almost hexagonal below the mouth.

One of the two bone daggers here illustrated (fig. 11) is more suggestive of a bronze model than the other (fig. 12), but they are probably contemporary and may date from the Bronze Age. A third, $7\frac{1}{2}$ in. long, was presented to the British Museum in 1871 and is said to have been found in a Cambridgeshire fen. The publication of the Layton specimens may bring others to light that would confirm or correct the chronological position here assigned to them.

In addition to three bronze dagger-blades of ordinary type, there is one

[1] On p. 398, pl. i, fig. 1, is illustrated a flanged celt from this collection, described at p. 428.

with six rivets, closely resembling a halbert-blade. It was found in the Thames at Hammersmith and measures 9 in. Weapons of this type are known to date from an early period of the Bronze Age both in Britain and on the Continent, and Professor Montelius assigns them to his period II (2000–1650 B. C.) in his comprehensive treatise (*Archaeologia*, lxi, 114, pl. xi). The present specimen has the rivet-holes in two groups of three, all equidistant from the slightly curved base of the blade.

Rapiers are a later development of the dagger and belong to Montelius's third and fourth periods; but in his scheme for the French Bronze Age (*L'Anthropologie*, 1901, p. 609) he regards those with expanding butts of trumpet-form (1850–1550 B. C.) as earlier than those of angular or spade pattern (1400–1150 B. C.). There are no less than twenty-eight rapiers in the Layton collection, and of these the longest and best measures 27 in., with spade-shaped tang for attachment to the handle and two stout rivets still in position. Thirteen others retain their rivets, and three have lost one each, four have lost both, but nearly all have the same angular tang. Five others have merely notches for riveting, and one has two rivets in place and two notches in addition.

There are thirty-three swords (including large fragments), some being worthy of special mention. One still retaining the metal end of its scabbard (chape) was exhibited to the Society at the Bronze Age Exhibition in 1873 and illustrated in *Proceedings*, v, 428, pl. ii, fig. 7; also in *Archaeological Journal*, xxxiv, 301, fig. 3. Such finds are fairly common abroad, and there are examples from France in the British Museum and one from Hampshire in Winchester Museum.[1] There are seven chapes of the same character and one much shorter and wider with a central rib; but all can be matched in France, and the type is illustrated in Brit. Mus. *Bronze Age Guide*, fig. 14, and dated by Montelius 1400–1150 B. C. (his period iv in Britain, see *Archaeologia*, lxi, pl. xv, figs. 118, 120).

Twenty-three of the swords may be described as normal, three others are tanged, and one is of unusual type for England, though well represented in France. It is 29 in. long and is complete except for the horn or wooden plates that were attached to the grip. There is a peculiar angularity about the handle, which had three large rivets and four smaller ones, two on either side of the base of the blade, which has pronounced notches. But the most striking feature is the sudden contraction of the blade and the long narrow point, as on three French examples in the British Museum, from Nantes, the Seine at Paris, and the Comarmond collection. All have the broad central rib, with oval section and wings.

The series of spear-heads would, with a few exceptions, serve to illustrate the paper in *Archaeologia*, lxi, 439, by the late Canon Greenwell and Mr. Parker

[1] Found together in peat at Houghton, between Horsebridge station and Bossington House. Mr. Reginald Hooley, hon. curator, has kindly supplied full-sized drawings.

Brewis, F.S.A. Of the thirty-four examples some are splendid castings that reflect great credit on our Bronze Age population, and give colour to the theory that the spear-head was developed from the dagger to the socketed type independently in the British Isles. It is unnecessary to repeat the stages of that evolution, and on the theory that the loops started near the opening of the socket, gradually approaching and at last coalescing with the blade, the following groups are in chronological order: five with loops set low on the socket, seventeen with loops in the angle of the blade, and ten plain leaf-shaped with holes in the socket for a pin to fasten the shaft. There are three exceptional

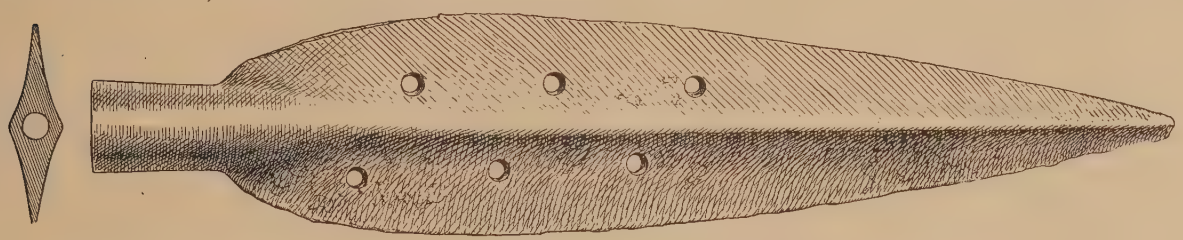

Fig. 13. Bronze spear-head, with perforated blade and section, Sussex (Garraway Rice collection). ($\frac{1}{2}$)

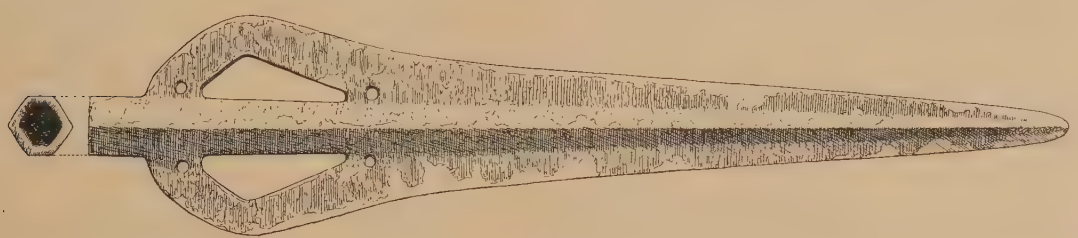

Fig. 14. Bronze spear-head, with perforated blade and hexagonal socket. ($\frac{1}{3}$)

specimens with openings in the blade: one (pl. II, fig. 4), with an unusually short socket, has lost its point: the blade has on one side a round hole and on the other two similar holes joined by a linear opening, very much like one from France in the British Museum (*Bronze Age Guide*, fig. 136) and our Fellow Mr. Garraway Rice's fine specimen (fig. 13), which was found in 1909 at Sutton End, near Petworth, Sussex, with six small rivet-like objects (some of which were thrown back), at 6 ft. from the surface. This was kindly exhibited at the meeting and lent for illustration.

Another specimen on the same plate (fig. 8) has openings of the more usual crescentic form,[1] perhaps a reminiscence of the loops at the base of the blade. Corresponding openings, but more angular, are seen in fig. 14, which

[1] e.g. the Dowris hoard, King's Co., and four from the Greenwell collection in the British Museum (one from the Tyne, another from Alnham, Northumberland, and two from Ireland). The type is discussed by Tallgren in *Opuscula Oscari Montelii*, p. 115.

represents the finest spear-head in the collection, measuring 16½ in., of a gold colour with black incrustation. There are also four circular holes, as in the specimens just mentioned, and another peculiarity is the hexagonal form of the socket, which only projects an inch beyond the blade and has the original peg and remains of the wooden shaft immediately below the blade.

Special mention must be made of a miniature spear-head of the above type with socket and pierced blades, approaching the arrow-head, bronze specimens of which are practically unknown in Britain, where flint was used for the purpose during the Bronze Age. In France the leading type in bronze is barbed and tanged.

There are two examples of the cylindrical bronze ferrule for the butt-end of a spear, now recognized as common in England. The best find in this country was at Guilsfield, Montgomeryshire, and one is figured by Sir John Evans (his fig. 424), who pointed out that castings of this character required considerable skill. The Layton collection alone is proof enough that the ancient Britons deserved the compliment. In the British Museum are three from the Thames, of which two are figured in *Archaeologia*, lxi, pl. lxxx, figs. 75, 76; and similar finds in the British Isles and abroad are discussed in connexion with the Broadness hoard in *Proceedings*, xxiii, 169. There are about a score of Irish examples in Dublin Museum.

Of four fragments of this metal that may have belonged to shields, but one of them, found at Strand-on-the-Green, Kew, had no central boss, though the corrugations bear a close resemblance to several complete shields. It is only 11 in. in diameter, and may have been an ornamental plate rather than a shield-centre. Two others have low bosses, and were evidently attached to bucklers of wood or hide. The fourth fragment is less easily explained, but is still more interesting. At first sight it seems to have formed part of the rim of a shallow bowl, like several figured from Hallstatt (Von Sacken, pl. xxiv), and resembles a fragment from Ixworth, Suffolk, illustrated in *Proceedings*, xxi, 108, fig. 11. But the present specimen, which has a diameter of 11·8 in. with raised bosses and radiating lines, was originally fixed by rivets to some material ¼ in. thick, and the rim is curled over for binding. Whatever its application, there can be little doubt that it belongs to the early Hallstatt period of the Continent, before the Bronze Age had come to an end in Britain.

Other bronzes belong to recognized types but include some of comparatively rare occurrence, such as sickles and razors. There are, however, no less than six of the former, of which two have sockets for the handle (fig. 15). The illustration shows a slight rib along the middle of the blade and a tapering socket, which has two pairs of peg-holes for fixing a wooden handle. The outer edge is also sharp. The other has only one pair of holes for the same purpose. One

of the razors has a tang and hole in centre of the double-blade with notch at the top (as Evans, figs. 269–72), but the other is of rhomboid form, 3 in. long, with a hole in the middle, approaching the knife pattern seen in Evans, fig. 261.

Six socketed gouges of the usual type are included in the collection, ranging in length from 2·5 in. to 4·2 in. This type and razors were found in the well-known Dowris hoard with socketed knives like one from the Layton collection figured in *Arch. Journ.*, xxxiv, 301, fig. 2 (wrongly described as a spear-head). Parallels for most of the Layton bronzes may be found in Sir John Evans's *Bronze Implements*, but since its publication in 1881 much has been done abroad towards establishing a chronological sequence of the various types, and it is naturally to France that we turn for further light on the subject. Besides Déchelette's *Manuel*, which is indispensable, mention should be made of the Abbé Breuil's survey in *L'Anthropologie*, entitled *L'Âge du Bronze dans le bassin de Paris*, of which six sections have appeared, viz. vol. for 1900, p. 503 (swords and daggers); 1901, 283 (knives, scrapers, razors, and sickles); 1902, 467 (moulds for casting); 1903, 501 (spear and arrow-heads); 1905, 149 (celts); and 1907, 513 (pins, ornaments, and harness). Another system of classification, by contemporary groups, has been elaborated for France by Prof. Montelius (*Compte-rendu*, Paris International Congress, 1900, p. 341, and *L'Anthropologie*, 1901, p. 609); and in order to facilitate comparison with the same authority's British scheme in *Archaeologia*, lxi, 97, his division of the French Bronze Age may here be repeated:

Fig. 15. Bronze sickle, with circular socket. (⅔)

1. (Copper) before 2000–1850 B.C.
2. 1850–1550 B.C.
3. 1550–1300 B.C.
4. 1300–1050 B.C.
5. 1050–850 B.C.

Hallstatt period.

It is to his period 5, for instance, that the engraved hollow bracelet (fig. 16), distinctly a foreign type,[1] would be assigned, also the boss of thin bronze with loop beneath (fig. 17) that seems to have been used as a cheek-piece ornament on a horse. There is a good example in the London Museum from Canon Greenwell's collection, and specimens from Swiss lake-dwellings are discussed

[1] One very similar was included in the Shoebury hoard (*Proceedings*, xiv, 178) and plain ones of gold were found at Tisbury, Wilts. (Brit. Mus. *Bronze Age Guide*, fig. 141), but the type was evidently derived from south-east France and Switzerland. The solid bar with overlapping ends (specimens in the Layton collection) is probably of local origin.

by Desor and Favre (*Bel Âge du Bronze lacustre en Suisse*, pl. iv, figs. 2 and 5, p. 14). To judge from the Rhenish Saalburg, these bosses came down to the Roman period (Jacobi, *Saalburg*, pl. lv, figs. 1 and 2).

There is a variety of details in ancient British coins that makes them objects of interest rather than of beauty, and the attention of Sir John Evans was attracted to two gold specimens in the Layton collection. One resembles in general fig. 2 of plate D in his *Coins of the Ancient Britons*, but is remarkable for its rendering of the charioteer, which is much above the average. The other, found in a brickfield near Kew, is a degenerate example of the same type, but the obverse or concave face has irregular star-shaped markings in relief that have severed all connexion with the laureated head of Philip of Macedon, which was copied and re-copied by our native coiners with a minimum of success. It

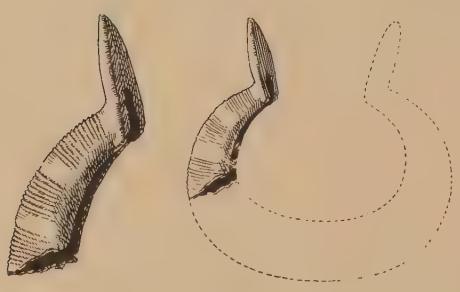

Fig. 16. Portion of bronze bracelet ($\frac{1}{1}$), with reconstruction. ($\frac{2}{3}$)

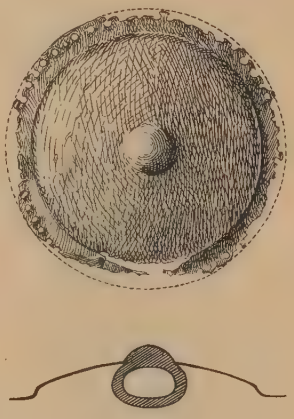

Fig. 17. Bronze disc, with section showing loop. ($\frac{1}{2}$)

Fig. 18. British coin of tin (obverse and reverse). ($\frac{1}{1}$)

weighs 122 grains and is illustrated in Sir John Evans's *Supplement*, pl. K, fig. 1 (see p. 441).

The tin coinage of the Ancient Britons is generally assigned to a late stage of the Early Iron Age, or even to the Roman period; and a well-known type produced by casting is represented in a small hoard of nine coins found on Eel Pie Island, Twickenham. A specimen is illustrated (fig. 18) with a rude representation of a human head to left on the obverse, and a grotesque quadruped on the reverse, both said to be derived from a type of Massilia (cf. Akerman, *Ancient Coins*, pl. xvi, fig. 12, where the reverse bears a bull). The metal has an admixture of copper, and specimens of the type have an average weight of $22\frac{1}{4}$ grains. Sir John Evans devoted some pages to this coinage (his p. 123 and *Supplement*, p. 484), and laid stress on the occurrence of three specimens at Mount Caburn, Sussex, a site that in the opinion of Gen. Pitt-Rivers was not occupied later than the Claudian conquest of A.D. 43 (*Archaeologia*, xlvi, pl. xxv, figs. 61–3,

p. 471). The lead coinage seems to be specially connected with Kent, but extends west to Weycock, Berks. (*Arch. Journ.*, vi, 120), and even into Dorset and Somerset.[1]

A brooch (fig. 19) of Italian origin, but presumably found in Britain, is of some interest, as an addition to the list of imports during our Early Iron Age. It had a spring of two coils on one side of the head; the boat-shaped bow is hollow, with side-knobs and four perforations, probably for the insertion of amber or glass discs; and the foot is long in proportion, with socket for the pin (now missing) running the whole length. The occurrence of these exotic forms in Britain has been discussed in *Proceedings*, xxi, 97, and three said to be from Kent are there illustrated (figs. 21–3) which furnish parallels for nearly all the features of the present specimen. There are several in the British Museum, and one from Hod Hill, Dorset (*Iron Age Guide*, fig. 104), has the contracted boat-shaped bowl with side-knobs and long catch-plate for the pin. A circular inlay of coloured glass can be seen on the expanded end of a torc from Greenhill, Weymouth, in the British Museum.

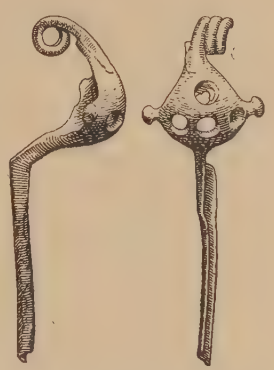

Fig. 19. Bronze brooch of Italian type (side and front views). (⅔)

Contact with the continental Celts of the period known as La Tène II (about 250–150 B.C.) is indicated by an imperfect sword-scabbard of bronze with ogee mouth (fig. 20). A part of the iron blade remains rusted inside, but the back plate and pointed end with chape are missing. At this stage the chape was almost heart-shaped (cf. Brit. Mus. *Iron Age Guide*, pl. vi,

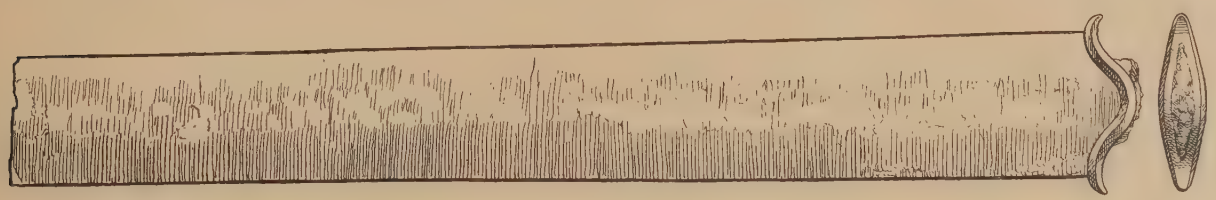

Fig. 20. Part of bronze scabbard of iron sword. (½)

figs. 3–6), and the blade and scabbard inordinately long. The curved cross-piece at the mouth is a guard attached to the sword, not to the mouth of the scabbard.

In the next stage of La Tène, connexion with Gaul was not so close, and British patterns developed independently. This is well shown in two of the greatest treasures of the collection, iron daggers in their scabbards of wood with metal fittings. The more complete (pl. II, fig. 5) has a cross-bar pommel and

[1] Specimens from Glastonbury and Ham Hill in *Glastonbury Lake-village*, ii, 394.

short grip, with four cavities in the base of the blade on either face. Metal bands, alternately golden and of darker colour, wrap the wooden scabbard, the chape of which is missing; and the other side of the scabbard was evidently not meant to be seen. The total length is 14 in. and the guard is 4 in. long.

The other (pl. II, fig. 6) has part of the blade projecting from the mouth of the scabbard, but the guard, grip and pommel are missing. It was found in Thames ballast at Mortlake, and, considering its materials, is in fair condition. The wooden scabbard, which is 11 in. long, has bands of thin bronze with pearled borders and a band of chevrons embossed below the mouth on the front, the back having a row of chevrons along each side. In this case also the chape, or metal terminal of the scabbard, is missing. Two illustrations are given in the *Arch. Journ.*, xxxiv, p. 301.

Remains of a third wooden dagger-sheath with metal bands are included in pl. II (fig. 2), and a piece of the iron blade still remains inside, but was narrower than the other two. Daggers of this period from the Thames are by no means uncommon, but this particular variety is important on account of its rarity and independence of foreign tradition. The two complete sheaths and probably the fragment also should on every ground be later than the more common form illustrated in *Proceedings*, xxv, 58, and probably date from what Déchelette called La Tène IV in Britain.

Among other weapons may be mentioned three spear-heads of iron with complete sockets; one, measuring 12 in. in length, has a sharp rib and peculiar formation at the base of the blade, where the rib merges into the socket (pl. II, fig. 1), and a sudden narrowing and strengthening of the point. This is frequently seen on spear-heads of the pre-Roman period. Another specimen seems to be a copy in iron of a bronze original.

An iron sickle (pl. II, fig. 3) with open socket for the handle probably dates from this period,[1] and the same may be said of an antler tine rubbed smooth and perforated in three places (fig. 21). The middle hole is squared inside and shows traces of friction, which might be expected if the object were used as the cheek-piece of a horse's bridle-bit, as similar specimens have been described on more than one occasion. There is another in the Layton collection with two opposite holes in the middle, and their general resemblance to the cheek-pieces of a bronze bridle-bit of the Bronze Age found in Sweden is unmistakable. Compare *Prähistorische Zeitschrift*, ii (1910), fig. 47, and antler specimens on pp. 280, 283, 392. Others mounted on a bridle are figured in

[1] Compare one from Bigbury near Canterbury, where an 'axle-end' was also found (*Arch. Journ.*, lix (1902), 214, fig. 3*a*; now in Manchester Museum); others from Cissbury, Sussex (*Journ. Anthrop. Inst.*, vii (1878), pl. xi, p. 422), Ham Hill, Dorset (*Glastonbury Lake-village*, ii, 366, fig. 138, right), and Wookey Hole, Som. (Balch, *Wookey Hole*, pl. xvii, fig. 50, see p. 93).

*Altertümer unserer heidnischen Vorzeit*, vol. v, pl. 36, no. 579; and the various forms are analysed in *Glastonbury Lake-village*, ii, 441, pl. lxiv.

An iron hook or primitive latch-key, found at Strand-on-the-Green, Kew, in

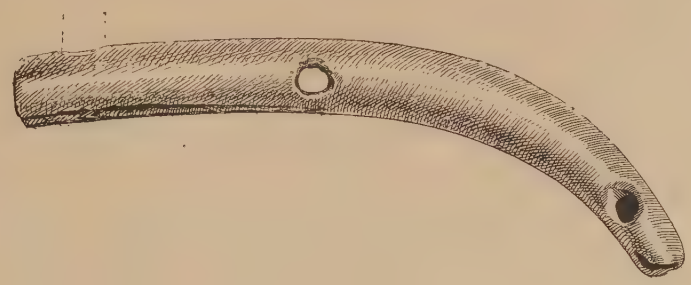

Fig. 21. Antler cheek-piece of bridle-bit. ($\frac{1}{2}$)

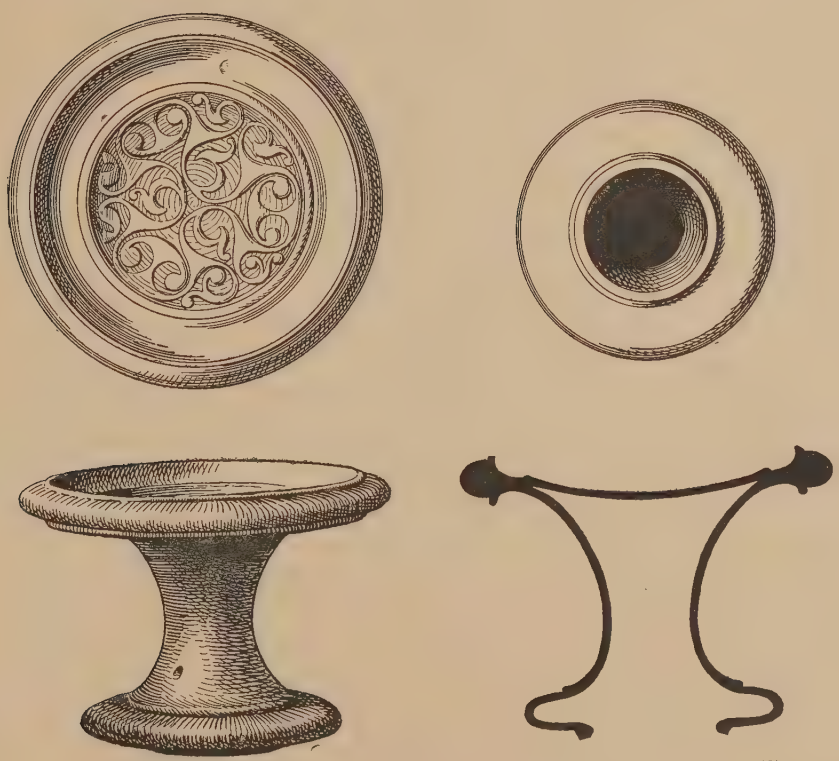

Fig. 22. Bronze casting with embossed plate, end view and section. ($\frac{2}{3}$)

1862, belongs to a well-known type which was explained by Gen. Pitt-Rivers in his work, *Primitive Locks and Keys*, pl. iv, p. 12. Examples in the British Museum come from the Early British stronghold of Spettisbury, Dorset, and contemporary specimens are figured in the *Glastonbury Lake-village*, ii, pl. lxii, 389, 156, and *Journ. Anthrop. Inst.*, vii (1878), pl. xi, p. 422, from Cissbury, Sussex.

What are known as bronze hubs or axle-ends seem to be peculiar to Britain and to have been connected with horse-drawn vehicles; though, if they were ever attached to the wheels of war-chariots, there could have been no place for the legendary scythes. At least seven others are preserved, of which three are in the British Museum (from the Thames at Goring and Putney, and from Burwell Fen, Cambs.); two in Taunton Museum (both from Ham Hill, Somerset: *Archaeologia*, xxi, pl. vi); one in Leicester Museum (from High Cross, Leics.); and one in Manchester Museum (from Bigbury Camp, near Canterbury, but not described in the account of finds there in *Arch. Journ.*, lix, 211). It is significant that three of these sites are on great Roman highways: Bigbury and High Cross on Watling Street, the latter at its junction with the Fosse Way, which skirts Ham Hill or Hamdon in Somerset. They all clearly belong to the pre-Roman civilization of Britain, and the Putney specimen has a loose convex diaphragm embossed with typical Celtic scroll-work; but any lingering doubts should be dispelled by the Layton specimen (fig. 22), which is the only one complete with its embossed plate filling the larger opening. Some of the others (as those from Goring and Cambs.) have that end closed with a solid bronze plate, perhaps intended to carry an ornamental disc, but the general idea is the same in all, and the casting is always hollow, for a certain distance if not all through. The Goring specimen weighs 1 lb. 6½ oz. av., that from Putney 1 lb. 5 oz., and the Layton example 11½ oz. The Putney casting has a slender bronze pin through the narrowest part of the neck, as though to fix a wooden shaft, but neither the wood nor the pin would be stout enough to support an object of that weight in everyday use. The Layton specimen was not cast in one piece, the smaller end having been soldered on; and there is a pair of peg-holes in the neck for a peg or rivet to fix a wooden shaft. On the thin bronze disc that fills the larger opening, and evidently formed the front of the casting, can still be detected traces of red enamel, which was applied to the sunk ground to set off the embossed scroll-work. The height is 2½ in., and greatest diameter 3·1 in.

One of the most valuable pieces in the collection, a British bucket (fig. 23) of the Late Celtic period, was described for the Society in 1890, and, after being inaccessible for many years, has now been rescued from perdition. The President's description of it, in his classic paper on the Aylesford finds (*Archaeologia*, lii, 359), was based on a sketch and notes taken by Sir Hercules Read at Mr. Layton's house, and may be quoted here:

> A Late Celtic tankard of the same character as the above (from Aylesford, Kent, and Elveden, Suffolk) . . . is in a singularly perfect condition; all the staves are preserved, and the bottom is still in its place. A remarkable feature was observed by Mr. Read in the construction of the wooden framework. The staves were clamped

together by means of little diamond-shaped pieces of hard wood let into their sides. Two of the three bronze bands, each two inches in width, by which it was covered, seem to have no double overlap, and were fastened severally by two rivets. The middle band was sufficiently fixed by the attachment of the handle, which seems to have been soldered on, overlapping the two ends. The handle is simply two bronze loops or eyes joined by an intervening band.

The height is just under 6 in., and the diameter at the mouth $6\frac{3}{4}$, increasing

Fig. 23. Wooden bucket cased with bronze, showing handle. (Height, 6 in.)

to 7 in. at the base. The bottom, which fits into notches cut in the staves, rises in the middle within $5\frac{1}{2}$ in. of the rim. Two staves are now missing, but the rest has been carefully put together and the only addition is one rivet where the lowest band overlaps below the handle. There is no ornamentation of the type that gives the Aylesford example its chief interest, but, apart from the technique and dimensions of the bucket, the handle alone would give a clue to its date. Six of the same general type, but all differing in detail, were found in the Neath hoard, Glamorganshire (*Archaeologia Cambrensis*, 6th ser., vol. v, p. 136, fig. 10; p. 139, figs. 11–13; p. 140, figs. 14, 15), but were described as of

unknown use. Another from Porth Dafarch, Holyhead, is illustrated in the *Archaeological Journal*, xxxiii, 141; and one that has been mistaken for medieval Gothic belonged to the Trawsfynydd tankard from Tomen-y-Mur, Merionethshire, now in the Mayer collection at Liverpool (*Arch. Camb.*, 5th ser., vol. xiii, 212, plate). Artis figured one from the Roman site at Castor, Northants (*Durobrivae*, pl. xxxvi, fig. 10), and in the British Museum are specimens from Welwyn and Aylesford (*Archaeologia*, lxiii, 21, fig. 21; lii, 358, fig. 9), two from Hod Hill, Dorset, and one from Greenhill, Weymouth, the last being more like one from the Broch of Okstrow, Birsay (*Edinburgh Museum Cat.*, p. 235).

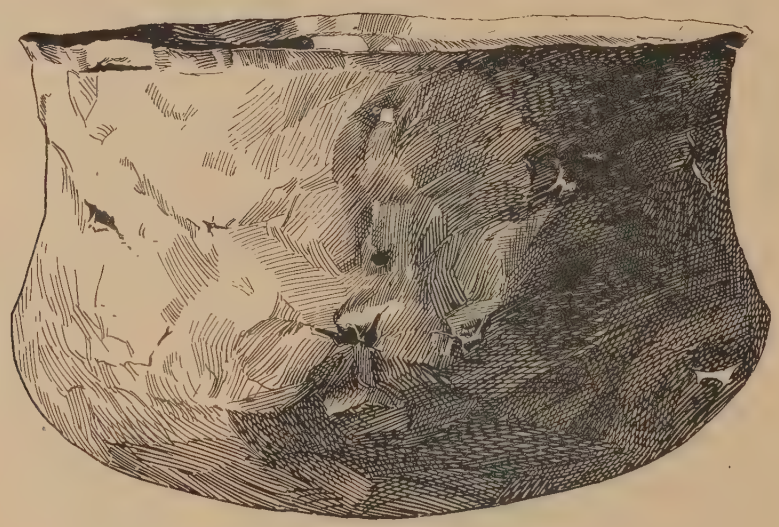

Fig. 24. Bronze bowl, perhaps a water-clock. ($\frac{1}{2}$)

The water-clock theory was brought before the Society in 1907 (*Proceedings*, xxi, 319) in connexion with a large bronze vessel found at Baschurch, Shropshire; and several additions have since been made to the list of bowls with small perforation in the base. Evidence of their use is only circumstantial, but they were clearly produced in accordance with a system that seems to be related to the bar-currency of the Early Britons. Not only do the shapes agree to a surprising extent, but the weights of such as are complete enough for an estimate reveal a system such as is known to have existed in ancient India in connexion with water-clocks. The discovery of a hoard of bronze vessels at Wotton, Surrey, in 1914 (*Proceedings*, xxvii, 76, reprinted in *Surrey Archaeological Collections*, xxix, 1), went some way towards proving the theory that perforated bronze bowls were used in this country before the Roman conquest for measuring time. To judge by the modern practice in Ceylon, the thin metal

bowl was placed on the surface of water and gradually sunk as the water percolated through the hole at the bottom. When full it was removed by an attendant who emptied it and replaced it on the surface. This process would occupy a certain unit of time, the lapse of which was announced by means of a gong[1] or other signal.

The Layton collection contains a thin bronze bowl (fig. 24) corresponding in shape to several already described as water-clocks. It is about 8·5 in. in diameter at the mouth, 8·7 in. at the bulge and 5·6 in. high, and in the centre of the base a small hole has been plugged with a round rivet and pentagonal washer, as is frequently the case with bowls of this description, the explanation being probably that though made for a water-clock, and no doubt used as such for a time, it was subsequently made watertight and served some other purpose as a bowl. The nearest parallel in shape to the Layton bowl is an imperfect one from Icklingham, Suffolk, in the British Museum, also with plugged perforation; and it is important to notice that the compensated weight of the former ($8\frac{1}{2}$ and $\frac{1}{2}$ oz.) is exactly the same as the Icklingham bowl, another from Lakenheath (7 miles distant), and a third from the hoard at Irchester, Northants. This is 2 oz. less than the unit weight of the currency bars and of the Wotton hoard of bowls; but the occurrence of four of one weight in various parts of the country indicates a community of practice that may possibly be due to the pervading influence of the Druids as representatives of religion and science in those early times. Further, both the Layton and Icklingham bowls had handles that may well have brought their weight up to the presumed British unit (4,770 grains or 309·7 grammes, about 11 oz. avoirdupois). The former has two square holes of $\frac{1}{8}$ in. one above the other, $1\frac{1}{2}$ in. apart (visible in the figure), the opposite side of the neck being so torn that no corresponding holes can be identified; but the latter bowl has traces of triangular attachments for a handle opposite one another below the lip, also an iron band vertically attached in another place, perhaps of the same date as the plugging of the central hole.

Another bowl in the collection, without precise locality, is nearly hemispherical, with a flat out-turned lip. The material is bronze which thickens towards the bottom: torn, but still complete, it measures 14 in. in diameter and is $7\frac{1}{4}$ in. to $7\frac{1}{2}$ in. high. Filled with water it would thus easily accommodate the water-clock, and may possibly have been used for that purpose. It is significant that many of these supposed water-clocks have been found in close proximity to a permanent supply of water.

Though not at Brentford Museum, mention must be made here of the Roman

[1] A bronze pan that may have been a gong was included in the Wotton hoard, and similar pans, with what may have been beaters, are known from Sturmere, Essex, and Westhall, Suffolk.

sword and scabbard (fig. 25) presented by Mr. Layton to the British Museum in 1883. It was found ten years before, in the Thames at Fulham, towards the Middlesex shore off Bishop's Walk, and was exhibited to the Society of Antiquaries in 1874 (*Proceedings*, vi, 157; *Illustrated London News*, 11 April 1874, p. 350; *V.C.H. London*, i. 127). The iron sword is now 22 in. long, including 1 in. of the tang, and the greatest width of the blade is $2\frac{1}{2}$ in. Traces of the wood lining of the scabbard are observable on the blade, and part of the bronze plating of the front still remains. The larger plate is embossed with floral scrolls, with birds, butterflies, and rabbits in the spaces; and the smaller plate, at the mouth of the scabbard, bears Romulus and Remus suckled by the she-wolf, and a stag brought to the ground by two hounds. It has been justly compared with the so-called sword of Tiberius in the British Museum, which was found in a field at Mayence on the Rhine (Brit. Mus. *Guide to Greek and Roman Life*, p. 103, fig. 91). Two other scabbards from the same locality are illustrated in Lindenschmit's *Alterthümer*, vol. iv, pl. 27, with a complete sword from Rheingönnheim, near Spires, that shows what the handle of the Layton sword probably was.

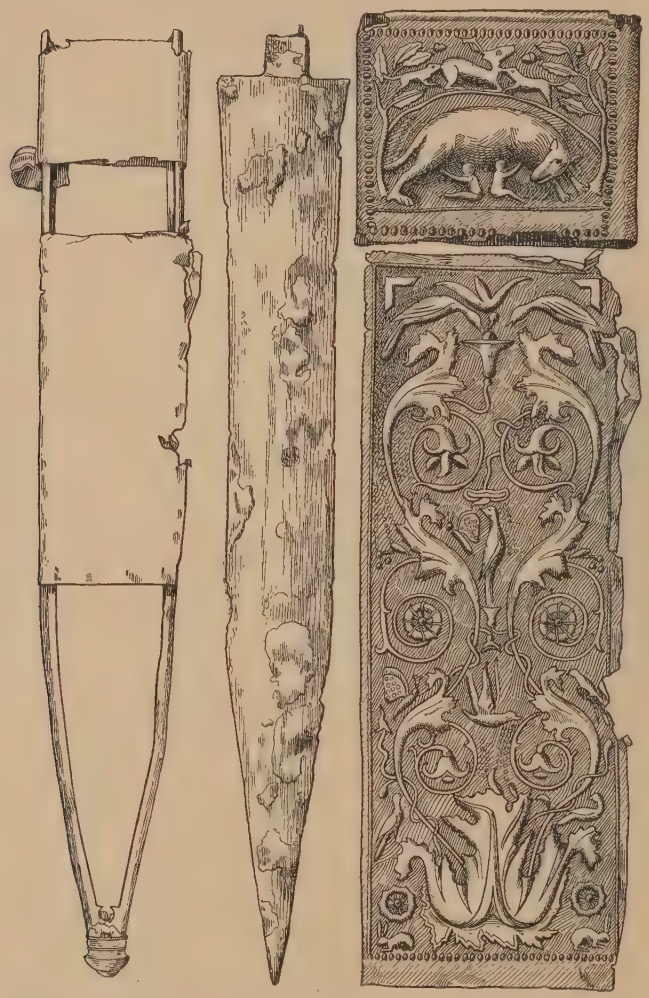

Fig. 25. Roman iron sword with bronze scabbard ($\frac{1}{4}$) and embossed plates of scabbard ($\frac{1}{2}$), Thames at Fulham (British Museum).

Authorities agree that the short pointed sword was a thrusting rather than a cutting weapon, and went by the name of *gladius* among the Romans. It was at one time thought that this pattern was borrowed by the Romans from their Iberian enemies about 200 B.C.; but M. Salomon Reinach (*Cultes, Mythes et Religions*, iii, 142), followed by Mr. Horace Sandars (*Archaeologia*, lxiv, 262), shows that the theory is mistaken, and that the Romans used a short pointed sword before the second Punic war.

Iron specimens of the type here illustrated (fig. 26) have long been a subject of controversy, but there is good reason for adhering to the name of *hipposandals*, which has been current for many years. That they were ever used as horse-shoes, even in special circumstances, might well be doubted in the absence of proof; but they have been found in association with horses' skeletons, and even containing the hoof (Jacobi, *Saalburg*, 528, fig. 87, no. 9). It was contended, however, by J. Quicherat, who brought together some interesting evidence in *Mélanges d'Archéologie et d'Histoire* (Paris, 1885), p. 167 (from *Revue des Sociétés savantes*, 1873), that they were principally used on oxen, and a good deal of light is thrown on the subject by his illustration of a monument in Nancy Museum (a cast at St. Germain, see S. Reinach, *Guide illustré du Musée de St. Germain*, p. 95, fig. 72), which in his opinion represents a drover with one of these iron objects hanging from his left wrist and a goad in his right hand. M. Reinach holds that the figure is that of an ostler, rather than a veterinary surgeon, as others have suggested. All four feet of an animal, found under the ruins of a Roman building at Granges in the Swiss canton of Vaud, were so furnished; and one of the two specimens in Aylesbury Museum has had a hoof added for exhibition. There is a second hipposandal in the Layton collection; and the specimen figured, with one wing missing, is 7 in. long including the back loop.

Fig. 26. Iron hipposandal (side and top views). ($\frac{1}{4}$)

One of several in the British Museum has an iron horse-shoe of the usual pattern attached to the under face; and, however great the practical difficulties, it is clear that the long upright was in front of the hoof and the short hook behind. Gen. Pitt-Rivers, who thought them shoes for sledges, has brought together several references in his *Excavations in Cranborne Chase*, i, 77, in addition to which may be mentioned our own *Proceedings*, 2nd ser.,

vol. iii, p. 92; *Journ. Brit. Arch. Assoc.*, xxi, 188, and l, 251–6; Lindenschmit, *Alterthümer*, etc., i, Heft xii, pl. v, and vol. iv, text to pl. 28. Several hippo-sandals are figured with references in M. Salomon Reinach's article on *Mulomedicus* in Daremberg and Saglio's *Dictionnaire*.

The above references incidentally furnish some information as to the introduction of the horse-shoe as we know it to-day; and, though the subject is a difficult one, it may be regarded as probable that the type with wavy edges, also represented in the Layton collection, dates from the Roman period. Evidence is adduced by Quicherat, *op. cit.*, p. 175, and two are illustrated from a dwelling-site in Lake Paladon, Switzerland, by Dr. Munro (*Lake-dwellings of Europe*, 301 and 493), but their Roman date was contested by Gabriel de Mortillet. More recent evidence takes the practice of shoeing horses back perhaps another five centuries, for Count Beaupré has found specimens of the Hallstatt period in Lorraine (*Deux fers de chevaux trouvés dans des gisements hallstattiens* (Le Mans, 1912), referred to in *Compte-rendu* of Geneva Congress of 1912, vol. i, p. 628, in connexion with the Marquis de Cerralbo's finds in Spain).[1] The wavy or lobed pattern has been found in Wilts. (*Cat. Devizes Museum*, part ii, pl. xxx, figs. 5, 7, 8) and in Oxford (*Arch. Journ.*, xxxiv, 464); some evidence, mainly negative, may be found in *Proc. Cambridge Antiq. Soc.*, x (1904), pp. 255, 193; and two papers on the antiquity of the practice are published in *Archaeologia*, vol. iii, pp. 35, 39. Specimens of this and other types are illustrated in Mr. Syer Cuming's paper on horse-shoes in *Journ. Brit. Arch. Assoc.*, vi, 406 (cf. xiv, 274), which is in favour of their Roman origin; and more than one pattern has been found at Saalburg (Jacobi, *Saalburg*, pl. 41).

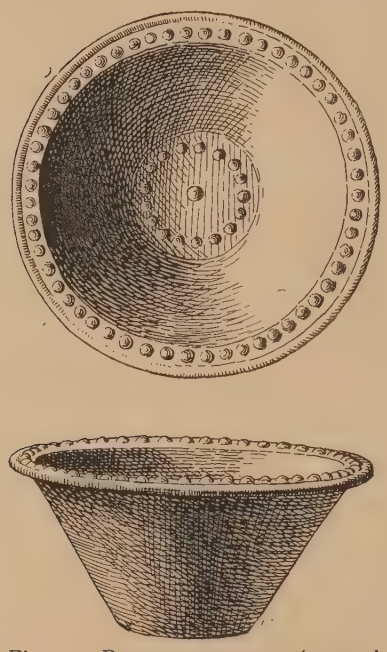

Fig. 27. Roman pewter cup (top and side views). (⅔)

It is argued by Dr. Marcel Baudouin that the pattern with wavy outline is Gaulish, of the pre-Roman period, and that in the Roman period other patterns, closely resembling those of later times, were already in use (*Compte-rendu* of Prehistoric Congress at Tours, 1910, p. 909, and p. 871, foot-note 1). A note by M. S. Reinach in *Revue Archéologique*, 1904, ii, 428, confirms the existence of horse-shoes in the Roman world; and the subject is discussed at length by Schaaffhausen in *Bonner Jahrbücher*, 84 (1887), 28.

There are eleven gold coins and over 900 pieces of bronze and silver from

[1] Noticed by our Fellow Mr. Horace Sandars in *Archaeologia*, lxiv, 286.

various localities, but the Roman period is poorly represented in the collection, and the finds add little to the topography of that period. A pewter cup (fig. 27) from the Thames near Richmond Bridge is among the objects chosen for illustration more on account of its form than its material or ornament. The pearled border is found, for example, on cups from Suffolk in the British Museum.

A bowl of the scarce marbled ware may have come from Italy in modern times, and the provenance of a few jugs is also uncertain. A jointed lamp-suspender is worthy of mention, and there is a good example of the toilet set, comprising tooth-pick, ear-pick, and nail-cleaner, attached by loops to a ring. Several have been found in this country and abroad.

Of seven brooches usually classed as Roman, two have features reminiscent of the preceding period—one having a recurved foot and the other an open-work catch-plate. A late example of the harp-pattern with the central moulding not

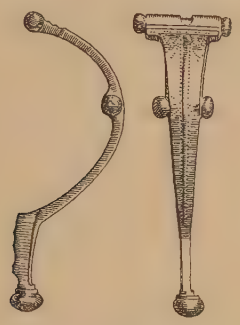

Fig. 28.

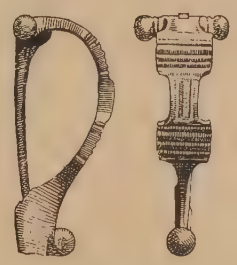

Fig. 29.

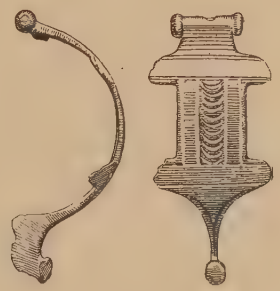

Fig. 30.

Roman brooches of bronze (side and top views). (⅔)

continued round the back of the bow comes from Old England, Brentford, near the ancient ford over the Thames; and a crossbow specimen has the beginnings of animal ornament on the foot, hinged pin and debased scroll-work on the head (fourth century).

The three chosen for illustration form an instructive series, and show the evolution of a type during a century or more. The earliest (fig. 28) has an arched bow with lateral knobs and a terminal knob on the foot recalling the Certosa type five centuries earlier; but the hinged pin (now missing) was not in use before the Christian era. The next (fig. 29) shows a transformation of the lateral knobs into a plate with transverse ribbing, balanced by another at the head, the bow still tapering to the foot, which retains its knob. Next the plates on the head and bow extend, and the bow between them expands into an ornamental surface (fig. 30); but the knobbed foot, arched bow, and hinged pin still indicate a lineal descent from fig. 28.

There is no need to multiply references, but three specimens much to the point are illustrated in our Fellow Mr. Bushe-Fox's Third Wroxeter Report,

pl. xv. His fig. 1 shows a still earlier example of the knobbed foot, with bilateral spring, attributed to the middle of the first century. His fig. 4 is about fifty years later and resembles our fig. 28; and one with perforated plate is much like the Layton specimen mentioned above and seems to date about A.D. 100.

The comparatively small Anglo-Saxon section includes some fine specimens, but again there are no details of association to establish a chronological sequence. To the pagan period (before A.D. 650) should belong a shield-boss of normal pattern, and two swords with parallel edges and blunt points, the tangs retaining pommels of bronze. A type frequently found in warriors' graves of the early centuries is represented by two examples of the spear-head with the two halves of the blade in different planes, supposed to communicate a spinning motion in flight; one comes from Shepperton-on-Thames, where cinerary urns of the fifth or sixth century were found in 1868.[1] Other spear-heads probably belong to the Christian or Viking period, and number over a dozen, the largest being 28 in. Some of these have the socket complete, unlike the earlier series; but one here illustrated (pl. II, fig. 7) is exceptional. It is 14½ in. long in good preservation, the socket split and separated from the subtriangular blade by bands of cord-pattern.[2] The socket has too, a double line round it near the broader end, and a rusted pin in position for one of the two pairs of holes for attaching the shaft. This form is rare, but not unprecedented (cf. Mortimer, *Burial-mounds of East Yorks.*, pl. lxiii, fig. 474).

The scarcity of scramasaxes or sword-knives in England, except in the Thames, has been remarked on elsewhere (*V. C.H. London*, i, 152). One with a straight cutting-edge and the back turned to meet it at the point, has a blade of 12 in. and a tang of 5 in., its chief interest consisting in the remains of damascening still visible on the blade. The process so called was fairly common in the Viking period, a wavy or marbled appearance being given to the metal by beating the blade out of twisted rods of different hardness, or of various metals. Illustrative specimens are preserved in the Museum of Practical Geology, Jermyn Street, London. A second example of this weapon has a blade of 8 in., curved upward at the point, the back being concave for some inches from that end. It came from the Thames at Richmond. Both, therefore, are somewhat aberrant forms for England, most having a straight cutting edge, and the blade cut off obliquely at the end. Further light on the sequence and chronology of the various forms would be welcome, the only dated example being one in the British Museum, found with coins of Æthelred II (978–1016). Medieval remains are numerous in the Layton collection, but the Norman Conquest must serve as a limit of date for the specimens described in the present paper.

[1] *Proceedings*, 2nd ser., iv, 118.

[2] There is one in Doncaster Museum, and another is illustrated in *Arch. Journ.*, Vol. V, 327.

II.—*Westminster Abbey: the Old Lady Chapel and its relation to the Romanesque and Gothic Churches. By the* Rev. H. F. Westlake, *M.A., F.S.A., Minor Canon and Custodian.*

Read 21st March 1918.

At first sight it would seem somewhat profitless to select as the subject of a paper a building not one stone of which can ordinarily be seen, but the great Benedictine church of St. Peter, Westminster, stands so high in the affection of the English-speaking races that even the smallest contribution to its story may be assured beforehand of a welcome. Moreover, there is a certain appropriateness in the fact that by an undesigned coincidence that contribution should be offered on March 21st, the feast of St. Benedict himself.

For a century and a half the church built by Edward the Confessor and consecrated early in the year 1066 had stood, so far as is known, unaltered, but in 1220, to satisfy the devotional needs of the time, a Lady Chapel was begun to the east of the church. Its foundation-stone was laid by Henry III on the vigil of Pentecost in that year, the eve in fact of his own coronation, but its history may be said to begin with the granting by Abbot Humez of spiritual benefits to all who should contribute to its building. Such contributors were promised[1] participation in all good things and spiritual benefits to be made for ever in the church of Westminster, in masses, alms, vigils, psalms, and all other good exercises, also a participation in the good works done in certain other churches bound to the church of Westminster by especially strong ties, namely, Fécamp and its cells, Malmesbury and its cells, Malvern and its cells, the church of Hurley, and the cell of St. Bartholomew at Sudbury. Certain of the benefits are definitely specified: thirteen masses for the living, that is to say, three of the Holy Spirit, seven of the Blessed Virgin, and three of saints whose relics are kept in the church; while for dead brethren who had bestowed alms on the work twenty masses a week were to be celebrated. Two hundred days of enjoined penance were also remitted by episcopal authority and twenty-one days of indulgence granted. Furthermore, the Abbot and Convent of Westminster had

[1] Westminster Domesday, f. 507 b.

obtained for the benefactors of the work from the Abbot of Citeaux a participation in all goods hereafter to be made in the Cistercian Order for ever.

The answer to the appeal was eventually more than satisfactory. Some time prior to the year 1246, during Ralph de Gloucestre's tenure of the office of Custos of the chapel, it was ordained that seven more wax tapers should burn daily at the Mass of the Virgin beside the thirteen tapers of old time, and, more significant still, no less a sum than one hundred shillings yearly should be distributed to the poor on the Feast of All Souls and on four of the Feasts of the Blessed Virgin out of the receipts of the office of Custos of the chapel.[1]

It is evident from the grant of spiritual benefits and from the many gifts which were made to the chapel that the new building was in no sense a royal foundation such as was the later Abbey. Royal interest in the chapel, however, was not lacking. At the beginning of the year 1240 Henry III gave five and a half marks for a glass window to be placed there,[2] which seems to imply that the work was nearly completed. That work on or about the chapel was, however, still going on more than five years later is evident from a Close Roll entry for 1245 which records that John de Waleflet had compounded with the king for lands and goods which had belonged to Ralph Broke. The said Ralph had killed a man and fled in consequence. By reason of his flight his goods were forfeit, and the king directed that the sum of ten pounds which thus became due to him should be paid to the Archdeacon of Westminster for the work of the chapel (*operaciones capelle*).

Abbot Richard de Berkyng chose there his place of burial, and there in the year 1246 he was laid to his rest before the altar with two tapers of wax to burn at his tomb, the cost of which was to be borne by the rent of land by the wood of Eastgrove at Kensington, which said land his predecessor had won in the year 1220 in the King's Court in a suit against Robert de Vere, Earl of Oxford.[3]

Within a few years the Custos of the chapel is found to acknowledge the receipt of rents of houses in Longditch and Tothill Street in Westminster, of others by Charing Cross, near Temple Bar and in Aldwych, and of certain payments by the Masters of the Hospitals of St. James and St. Giles, together with the profits of the sale of sand from Tothill fields and of wood from St. Mary's Grove. But many of these gifts must have proceeded from benefactions made after the chapel was in full use, for it would appear that the chapel was not roofed until the year 1234, which suggests that the resources of the convent were severely taxed. In that year the king directed that twenty oaks from the forest of Tunbridge should be given to the Abbot for the new work on the chapel.[4] It must be supposed that these oaks were required for the roof and that they served

[1] *Domesday Chartulary*, f. 568b.
[2] *Liberate Roll*, 18 Jan. 1240.
[3] *Domesday Chartulary*, f. 566b.
[4] *Close Roll*, 24 April, 1234.

their purpose until 1256, when the king directed that the timber of the roof should be taken down and given to the College of St. Martin-le-Grand, as the roof was to be rebuilt in stone. I am here quoting from Mr. Lethaby,[1] who has suggested that the chapel was lengthened or possibly entirely rebuilt at this time. This is of course possible, though so far as I can find there is no evidence for it whatsoever. It is clear I think that a rebuilding was not contemplated when Abbot Richard de Berkyng chose the site of his burial or he would have selected some other place than in a structure shortly to be demolished. Such slight evidence as exists points to a continuity unaffected by such a break as the rebuilding would have been. The Roll of 1298 refers to the candles by Abbot Berkyng's tomb and to certain other details in the same manner as do the original documents which record his burial fifty-two years earlier. It is evident at least that he did not suffer the fate of the poor remains of Katharine de Valois in the rebuilding of the early sixteenth century. There is, moreover, a difficulty in connexion with this roof. In 1244 the king gave an order[2] that the master of the mint should cause to be made an altar of St. Adrian *over the vault*, when one would have supposed that no vaulting was in existence. The order implies that there was an altar of St. Michael in the same place and makes provision for panes of glass suitable for both altars, which seems to imply that windows were necessary to light these chapels. Mr. Peers has suggested to me that if the Close Roll entry of 1256 had not been in existence one would definitely assume that the chapel had a vault in 1244 with altars above it in a loft as at Christchurch, Hampshire, where also the loft is known as St. Michael's loft. I find also in the Customary of Canterbury a direction that before vespers on the vigil of St. Michael a candle was to be placed *super volticium* before the altar of St. Michael. There is mention also of an altar of St. Adrian in the same section. I cannot find, however, at present any subsequent reference in the Abbey muniments to these altars at Westminster. Such of the rolls of the Wardens of the chapel as I have had leisure to examine make no mention of altars in the chapel other than that of St. Mary herself.

By 1256 the choir of the Confessor's church had been pulled down and the present structure was in course of erection. For two centuries and a half the Lady Chapel served the new building, a sufficient proof, apart from the wealth of its endowment, that it lacked nothing in dignity nor was inadequate either in dimensions or proportions to the new church. But finally its own turn came and it was destroyed to make room for the more elaborate structure of the chapel of Henry VII.

The old Lady Chapel thus occupied a position in its building between the

[1] *Westminster Abbey and the King's Craftsmen*, pp. 141, 161.

[2] *Close Roll*, 5 July, 1244.

Romanesque and Gothic churches and its importance is therefore considerable. Could its dimensions and exact position be determined they would of necessity throw a certain light on the interesting problem of the older church on to which it was built, and might also be found to have exercised a certain influence on the proportions and planning of the church which Henry III was afterwards to build on to the chapel.

Hitherto, all that has been known about the plan of the chapel is that it ended in a three-sided apse—a fact determined at the opening of a vault in 1875—and that its width was that of the present chapel excluding the aisles. Mr. Micklethwaite,[1] referring to the junction of the chapel with the present church, said: 'We do not know how it was done, because the junction is destroyed or hidden by the Tudor work' (i.e. of Henry VII's chapel); while Mr. Lethaby,[2] referring to a sketch-plan of the present apsidal chapels (see fig. 1), says: 'The ends of the wall-passages which pass along the window-sills of the chapels are blocked to the east by masonry. That is, the passage was not continued beyond these points, and therefore we may be certain that there never was an eastern chapel of the same form as the others, with only low openings to the Lady Chapel.' Both these statements are only partially accurate. It is true that if we pass along the window passage in the north-eastern chapel of St. Paul we are eventually confronted by a blank wall, which, however, bears obvious signs of a subsequently filled aperture, but in the south-eastern chapel of St. Nicholas this is not the case. The passage is indeed much blocked by the colossal monument to Anne, Duchess of Somerset, but it is possible to get past this to a passage beyond. In the summer of 1916 Mr. Lawrence Tanner and myself paid a number of visits to this passage, and I may here take the opportunity of stating that the whole work of investigation was carried out in conjunction with him, so that any credit that may be conceived to attach to it belongs as much to him as to myself. We found that the passage led right on into the massive wall where the junction of the church and chapel must lie (see fig. 2). Once inside the wall the passage bent slightly to the right. A further and sharper bend in the same direction brought us through an arch into a line at right angles to the original entry and running due east. We found ourselves

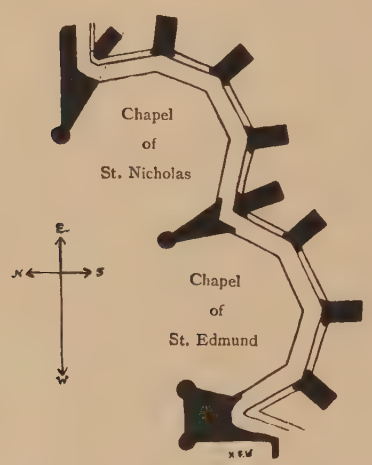


Fig. 1. Window-passage. Radiating chapels.

[1] *Archaeological Journal*, March 1894, p. 18.
[2] *Westminster Abbey and the King's Craftsmen*, p. 144 n.

in a sort of cave. In front of us, to our left, and overhead was an irregular conglomerate mass of stones and plaster. To the right, however, as one would expect, was a smooth wall running eastwards for about four feet, where it is succeeded by the rubble mass. Immediately to the right and left of the entry arch were two shafts of polished Purbeck marble, 27 inches apart (see fig. 3), the right-hand shaft being supported on a chamfered plinth, the left rising from

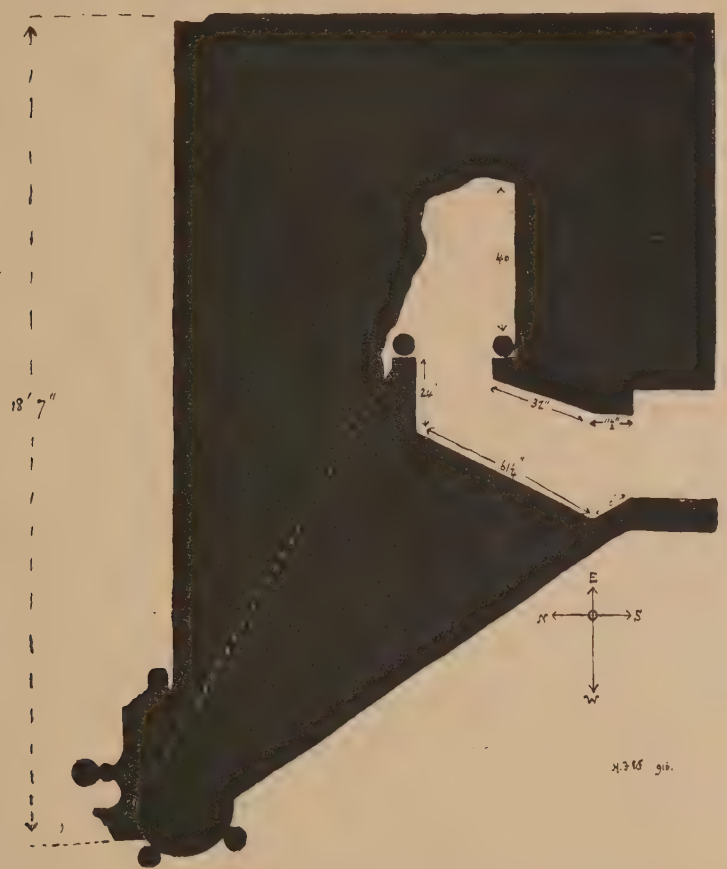


Fig. 2. Sketch plan. Window-passage leading to arcade.

Fig. 3. Lady Chapel. Section of passage looking west.

a base on the passage floor, and both running up to be lost in the rubble overhead at a height of more than seven feet above the floor. These remains could only be those of part of a central radiating chapel forming a vestibule to the Lady Chapel or else a substantive portion of the chapel itself. The smooth wall to the right and the wall above the arched entrance bore traces of a pattern painted in the customary crimson shade, which we were able to recover by making drawings of fragments and fitting them together. The result showed

a double square of $5\frac{1}{2}$ inches external measurement enclosing a conventional pattern, which Mr. Peers tells me would be called a rose. This pattern was quite certain, but we could not be sure that it was the only one. There were fragments which might conceivably have been those of a *fleur-de-lys*, though our opinion was finally against this. It will be easy to see from the pattern shown (fig. 4) how that idea might arise. I should mention that the pattern occurs not only on the wall which had been prepared to receive it, but also on the plain stone surface at the corners.

The existence of such painted work which occurs nowhere else in the Abbey church—the entire absence in fact of any similar scheme of decoration of the actual fabric elsewhere—disposed one at first to think that here was the first bay of the Lady Chapel of 1220, rather than a section of the easternmost of the radiating chapels of a later date which must otherwise have linked the church on to the chapel, more especially as it was found to run in the line of the former southern wall of the chapel and to occupy a symmetrical position with regard to its bays. Against this attractive theory, however, there are two strong arguments. First, though much obscured by the dressing which had been applied as a groundwork for the painted patterns, it was evident that there was no break in the course of the masonry running from the radiating chapels; and secondly, the moulding of the base of the Purbeck shaft starting from the plinth was observed to be identical with the mouldings of similar bases in the chapels. I come therefore, somewhat regretfully, to the conclusion that the work belongs to the rebuilding by Henry III. Nevertheless, it is not perhaps inappropriate still to describe it as a portion of the Lady Chapel, for it must have formed the link which joined it to the church, and this, so far as I am aware, has not been determined before. Presumably then the chapel would begin immediately to the east of this bay and its position would thus be definitely determined. The fact that there is no window in this bay seems to suggest that some connecting masonry lay outside it and thus adds weight to this assumption.

Fig. 4.

By permission of the Dean, we made a slight surface attack on the rubble mass in front of us and were fortunate enough to dislodge three pieces of moulded Reigate stone which had evidently formed portions of a window mullion. We did not care to do more than this, but the whole evidently contains fragments

large and small of some destroyed building poured in with mortar to form a filling between the original wall and the later Tudor work to the north of it. The moulding is of fifteenth-century work and so cannot have belonged to the destroyed chapel, though it is very probable that if such excavation were continued fragments of the latter would be found. The origin, therefore, of these fragments is not obvious. The only buildings in the immediate neighbourhood from which such stones would be likely to have come would be the Palace of Westminster and the church of St. Margaret. Of these the former was much damaged by fire in the year 1512, while the latter was rebuilt between the years 1480 and 1523.

The cave itself presents something of a problem. It can hardly have been the result of some previou excavations or the painting on the wall could not have survived. As it is, much of the painting hangs loosely on its plaster groundwork and to blow on it would be to dislodge it. The only explanation we could give

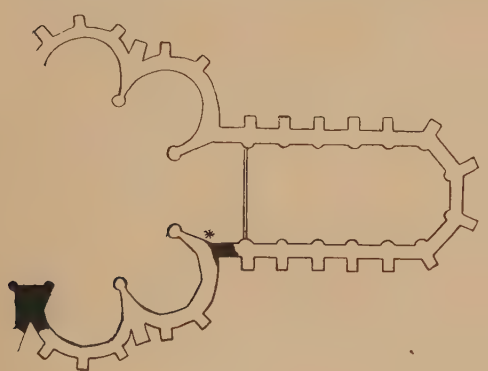

Fig. 5.

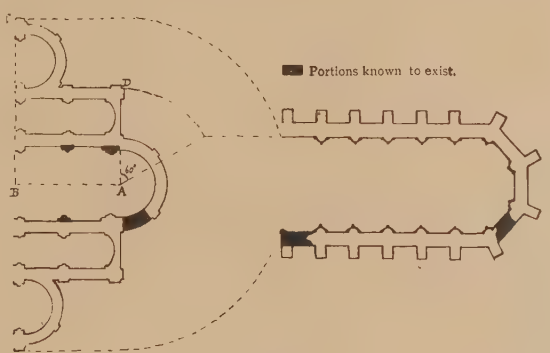


Fig. 6.

was that the filling had been poured in from above and that some of the larger stones had been caught in their descent, thus forming a roof to which plaster had been in part applied from below, but it must be confessed that this explanation was not satisfactory and that it was not altogether warranted by the general appearance of the roof.

I pass on now to the theoretical plan of the chapel which the discovery of this junction suggested. The relation of the chapel to the church of Henry III (see fig. 5) seemed fairly clear, for the existence of the angle between the two rays at the point marked by an asterisk was observed in the investigation. But I had to remember the alternative possibility that the junction-bay was a portion of the earlier work. Here I would ask you to remember that I am now to describe the course of the investigation rather than the conclusions at which I finally arrived. I went first on the assumption that this remnant of window-passage belonged to the chapel of 1220. The resulting building seemed to consist of six bays and an apse and to be roughly of a length of 94 ft., or of 80 ft.

with a vestibule-bay of 14 ft., and some 35 ft. in width. The plan was drawn to the same scale as the conjectural plan made for Dr. Armitage Robinson for his paper on the church of the Confessor, read before the Society in February 1910[1] (see fig. 6).

I then set out to find if possible the connexion that must have existed between the two. I found that if the middle point A of the chord of the apse were taken as centre a circle of radius BC exactly reached the end of the window-passage, while the interior line of the chapel wall exactly trisected the semi-circle of radius AD. These coincidences, at any rate the latter, seemed to be designed and to militate against the theory once propounded by Mr. Lethaby[2]

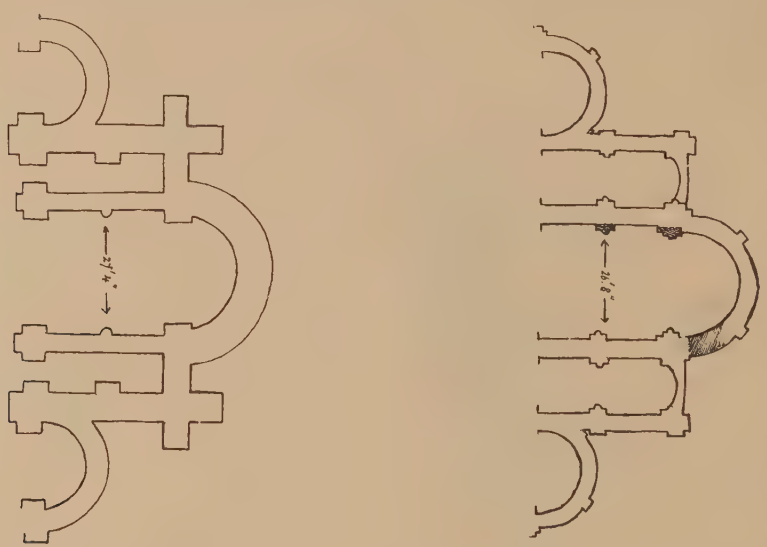

Fig. 7.

Jumièges. After R. M. du Gard. Westminster. After Dr. Armitage Robinson.

that the old Lady Chapel might have been a detached chapel such as that of another dedication at Chartres.

It will be remembered that after a careful examination of Jumièges, the presumed prototype of the Confessor's church, Dean Robinson found himself obliged to differ from the traditional view that the church of Westminster had an ambulatory and radiating chapels. He conceived it to have had a walled-in presbytery and side-aisles closed to the east by square walls such as were found in excavation at Jumièges by M. Roger Martin du Gard. I may mention that the excavations of M. du Gard make his conjectural plan of Jumièges as certain as it could be. There is evidence to justify every line of it. When the two plans are shown side by side it will be at once noticed that Dean Robinson

[1] *Archaeologia*, lxii, 81.

[2] *Journal of R.I.B.A.*, 3rd S., xvii, 80.

found it necessary in order to get the proper width for his church to make the presbytery-aisles wider than those at Jumièges, for the width of the presbytery itself was definitely less (see fig. 7). Now this may be significant if we are not to rule out the theory of an ambulatory at Westminster. It must be remembered that the actual evidence in stone for this reconstruction of the Confessor's church is very small, and it must be remembered also that in his reconstruction Dean Robinson ignored the problem of the Lady Chapel altogether. I cannot but think that the position of this chapel suggests an entire modification of his conclusions with regard to the Confessor's church. It seems to me, as an amateur, that the only possible way of bridging the gap between the two buildings is by the provision somewhere between 1066 and 1220 of an ambulatory and radiating chapels, which the Romanesque church of Jumièges certainly never had. It is entirely certain that the Lady Chapel was in use at the time when the eastern portion of the Confessor's church was being demolished and the corresponding portion of the later church built. It stood therefore far enough eastwards to make an extraordinary gap between it and the Confessor's building, if Dr. Armitage Robinson's reconstruction is final.

It is possible that the church was not entirely finished at its consecration in 1066. If so, we should have a satisfactory explanation of a passage in the so-called first charter of William I, which, as Mr. Lethaby and Dr. Armitage Robinson have both remarked, though not genuine in itself, may yet contain a true tradition. This passage may be translated thus:

'And because I perceived that the boundary walls of the church (*macerias ecclesiae*) were for the most part still unfinished, I have given one hundred pounds of silver towards the completion of what remains.'

I confess I do not understand the passage in Dr. Armitage Robinson's paper in this connexion. He quotes it to prove the opposite, and says: 'If indeed Edward had left the church unfinished we should certainly expect to hear that William . . . had contributed to the work of completion. On the contrary, we find the tradition . . . that William gave a hundred pounds of silver to complete the boundary walls of the abbey.'

The difficulty, of course, is in the words *macerias ecclesiae*, which Dr. Armitage Robinson translates 'boundary walls of the *abbey*', going on to say that so far as written evidence goes he has not found a hint anywhere that St. Edward's church was unfinished at the time of its consecration. I would contend that *macerias ecclesiae* may equally well mean the walls of the church itself, though the word *ecclesia* is often used somewhat loosely and *maceriae* may seem a curious word to use in this connexion.

If the church was unfinished there was room for the alteration or development of the original plan possibly at such a date as 1163, the first translation

of the Confessor (a suggestion I owe to Sir William Hope), and the idea of the ambulatory, derived ultimately from St. Martin's at Tours, could easily have been grafted on to the views of the original designer. The date of such grafting would, of course, be immensely important because of the effect upon the size of the radiating chapels, which in the centuries that followed developed from tiny bubbles on the surface until they occupied practically the whole curve of the ambulatory. I do not, however, feel competent to examine this question in its relation to the Westminster church further than to say that if the plan of St. Martin's had been followed and the easternmost chapel had opened, as it there did, from an intervening vestibule of some size instead of directly from the ambulatory, its eastern end would have fallen approximately into such a position as to allow of a Lady Chapel of five bays and an apse, such as I conceive it actually to have had. Moreover, these proportions would be consistent with the more probable theory that the section of window-passage belongs to the rebuilding by Henry III.

I will now ask leave to make a digression of some importance, directly instigated by research into the history of the Lady Chapel, and to call your attention to Master Henry the Mason, to whom Mr. Lethaby has already devoted some of his fascinating pages.[1] Mr. Lethaby has traced his career from 13 March, 1245, to the end of the year 1253, and sufficiently shown that he was the architect of the new Abbey Church right from its beginning till towards the close of the latter year. I do not therefore propose to repeat the information upon which these conclusions are based, but only to amplify it as far as may be.

I find that Master Henry comes quite suddenly into view at a somewhat earlier date than Mr. Lethaby mentions for him. A Close Roll entry dated at Windsor on 10 December, 1243, records that together with one William le Brun he was awarded a gown of office by the king. He is here already described as Master of the King's Masons, though no details of his earlier history or achievements are extant. So far as I can find from Sir William Hope's monumental work[2] he was quite unconnected with the rebuilding of St. George's chapel, which was at that time in progress. The new work at Westminster was begun on 6 July, 1245,[3] and an entry in the Close Roll for 4 June in the following year suggests that Master Henry was by then domiciled in Westminster, for mention is made of houses which the king had purchased of Thomas de Pulton for the purposes of 'Master Henry the Mason'. In the year 1253 or 1254 he was succeeded in office by Master John of Gloucester, and thereafter ceases to appear in Fabric or other Rolls.

[1] *Westminster Abbey and the King's Craftsmen*, pp. 150-60.
[2] *Windsor Castle.*
[3] Matthew of Westminster.

Now the close architectural connexion of the two Coronation Churches of Reims and Westminster has always been something of a problem. If Master Henry were an Englishman, as so much of the work suggests, how did he acquire that recondite knowledge of the French planning necessary for the conception of Westminster? Sir Gilbert Scott[1] said, 'I should imagine that an English architect, or master of the works, was commissioned to visit the great cathedrals then in progress of erection in France with the view of making his design on the general idea suggested by them. . . . The result is precisely what might have been expected from such a course. Had a French architect been sent for, we should have had a plan really like some French cathedral, and it would have been carried out . . . with French details. As it is, however, the plan, though founded on that common in France, differs greatly from any existing church, and it contains no French detail whatever, excepting the work of apparently one carver.'

Sir Gilbert also remarked: 'I know of no French church from which the actual plan could have been taken.'

With these views I gather that Mr. Lethaby expressed his almost entire concurrence, going on to add from his own investigations: 'That Master Henry . . . was an Englishman is proved sufficiently by his work; that he had no other name than Henry goes to show that he was a London man.'[2] Unfortunately, however, Mr. Lethaby has given him another name by calling him Henry 'of Westminster' almost consistently, thus misleading the late Mr. Francis Bond,[3] who expressed what I believe to be the correct view that 'no English architect whether he went to France on a short or on a lengthened visit to study French Gothic on the spot could have designed Westminster; certainly not Henry of Westminster'.

With regard to the difference in plan between Reims and Westminster I hope to say something a little later. At the moment I want to suggest that Henry 'of Westminster' had no existence in fact. Henry, Master of the King's Masons, existed indeed but he was not Henry 'of Westminster'.

Reference has already been made to the large number of gifts made to the Lady Chapel. In the year 1256, on the 12th of March to be precise, two or three years after Master Henry disappears from the accounts, a deed was signed by which a yearly rent of five shillings from a certain messuage in Westminster was made over in perpetual alms to Abbot Richard de Crokesley and his monks for the support of a lamp in the chapel. The donor describes himself as 'Hugh, son of the late Master Henry de Reyns mason', and states that the messuage had been a gift to him from his father. The original of this deed is not forthcoming, but a copy of it appears among the writings of the

[1] *Gleanings*, p. 20. [2] Lethaby, p. 126. [3] *Westminster Abbey*, p. 109.

Lady Chapel in the Abbey Domesday Book (f. 553), and I suggest that the copyist of a date at least fifty years after the execution of the deed has missed just a single stroke of the pen and written Reyns for Reyms. Or more probably Reyns was the common form in England, cf. *Liber de Antiq. Legibus*, (Camd. Soc., p. 137) 'apud Reyns . . . fuit inunctus in Regem Francorum'. Cf. also *Liber Albus* (Rolls Series, vol. i, p. 225), 'draps de Reyns'. Several other examples might be cited. If this be the case the mystery is solved and Master Henry was not an Englishman at all. The choir of Reims was finished before 1241,[1] and I take it that some mason intimately connected with the church at that time was invited by the king to design his new church and superintend its building. The king himself had been in France throughout the year 1242, and indeed only returned to England at the end of September 1243. It is easy to suppose that the new mason came over in his train. I see this man at Windsor in December 1243 with his plans ready for the king's inspection, coming suddenly into prominence by his new appointment as Master of the King's Masons, giving the king the benefit of his foreign experience in an inspection of the fortifications at York in 1245, and then going to settle for the remainder of his days in the neighbourhood of the new work which was to be the crowning achievement of his life,—his son deeming it appropriate after his death to perpetuate his memory and benefit his soul by a gift of property which had once belonged to him to the Abbey he doubtless loved.

Henry of Reims, if we may now so style him, would seem not to have been the master mason at Reims itself, for that office was filled from 1211–31 by Jean d'Orbais and from 1231–47 by Jean le Loup. Indeed, the master mason could not have been spared, for there was much left to do at Reims. But one Gaucher de Reims was in office there from 1247–55, and I should like to think that Henry was his elder brother and that they had been trained together under the earlier masters.

I do not forget that there was in Essex at this time a great family of a somewhat similar name, the descendants probably of one Roger de Rames, who held about twenty lordships in that county at the time of the Domesday survey. Captain P. B. M. Allan, who has made a careful study of this family, tells me that there was, so far as he can ascertain, no Henry de Rames between the years 1200 and 1272. Certainly no Henry appears in the Testa de Nevil, the Liber Rubeus, Oblate or Fine Rolls, Pipe Rolls, Plea Rolls, Patent or Close Rolls, for this period. He has found eleven variations in the spelling of the family name, none of which happens to coincide with the spelling of the Abbey deed, though many of them exhibit the same indifference as to the second consonant employed as does our Abbey copyist. I see no reason for

[1] Louis Demaison, *Congrès archéologique de France à Reims*, 1911, vol. i, pp. 19–55.

endeavouring to connect Henry de Reyns with this noble family when all the circumstantial evidence points to Reims as the place of his origin.[1]

I must turn now to the concluding portion of my paper—the problem which Master Henry found before him in the designing of the Westminster church. He could have no such free hand as his masters at Reims, for the space to be occupied by the presbytery and its surroundings was already determined in two directions. To the west the crossing of the new church must be the same as the old because of the position of the cloister. Indeed the carrying of the South Transept over a portion of the Cloister emphasizes his difficulty in obtaining the width he desired. To the east the Lady Chapel marked the distance to which he could go in that direction, and its width could not be without considerable influence on the plan of the radiating chapels.

At Reims the distance of the crossing to the end of the eastern chapel is about 150 ft. To have adopted at Westminster a plan similar to that prevailing at Reims would have been to encroach so far on the area of the Lady Chapel as to leave it with but three bays and an apse. At Reims the eastern chapel is of greater depth than the other radiating chapels, but even if a chapel of the lesser depth (i. e. of the same depth as the N.E. and S.E. chapels) had been built at Westminster there would still only have been left the apse and rather less than four bays of the Lady Chapel. If we assume that the newly discovered bay belongs to Henry's building the distance from its eastern end to the crossing is only about 125 ft. So far as I know none of those who have written on the plan of Westminster has ever taken into account the limitations which the Lady Chapel must have imposed.

I take it that Henry, while retaining the idea, boldly abandoned the actual plan of Reims, abandoned that is to say the inclusion of the whole length of the transepts in the scheme of the ambulatory and its chapels. The limited distance available necessitated some shortening of the presbytery, while the width of the Lady Chapel made inevitable the widening of the angle between the axes of the N.E. and S.E. chapels. At Reims this angle is 72°, at Westminster 90°, the basis of the plan in the latter being an octagon instead of a decagon.

The effect of this was twofold. On the one hand a greater area and a bolder effect was given to the radiating chapels, while on the other the church east of the crossing was considerably narrowed and in the narrowing lost a chapel on each side from want of room, such little space as was left being occupied by a heavy block of masonry very obvious on the south side (see fig. 1) but less

[1] Since the above was written Dr. E. J. L. Scott, Keeper of the Abbey Muniments, has told me that in his view *Reyns* is a phonetic rendering of the common pronunciation of *Reims*. Professor de Feuillerat of Rennes often asserted to him that the correct pronunciation of *Reims* is as if spelt *Rines*.

so on the north because of the hollow in it occupied by the little chapel of St. Mary, generally miscalled the chapel of St. Erasmus.

The late Mr. Francis Bond described this narrowing as a concession to the English requirement that the chapel altars should face eastwards, but there seems no reason to support this view. The unique character of the plan seems to have been dictated by the necessities of the case, which, I think, afford an adequate explanation of the departure of a Reims architect from the Reims plan. The result, which is shown in the plan (fig. 5), shows him to have been a man of original genius and no mere copyist of the masters who had so adequately instructed him. This plan is practically that which Mr. Lethaby has already suggested,[1] but has of course the additional fact of the discovery of the portion of the fifth chapel to justify it. There is some evidence to show that the entrance to this fifth chapel was blocked centrally by a screen and that two lateral openings gave access to it.

One further point, and that a purely speculative one. Did the window-passage which we now know to have been continued towards the east terminate abruptly at the end of the bay? The idea of the window-passage would have been known in England some years before 1220, and I suggest that it is possible that Master Henry designed a continuation of a passage already running round the Lady Chapel, and further, if that be the case, that the influence of the chapel affected not only the ground plan but also the elevation of the new church. If the window-passage were of the same height in both, and a portion of a radiating chapel linked the two, would not the height of the radiating chapels be the same as that of the Lady Chapel? The height of the vaulting of the chapels of the *chevet* at Westminster is, I think, some eight feet less than that of Reims. For this there must have been a reason, and I suggest that the difference arose in Master Henry's endeavour to work the Lady Chapel into his new plan and give a symmetry to the whole which it might otherwise have lacked.

In conclusion, it is a pleasure to acknowledge a debt of thanks to Captain P. B. M. Allan for much information in connexion with the Rames family, to Mr. Bilson for notes on the architect-masons of Reims sent by him to Mr. Peers, and chiefly to Mr. Peers himself for his ready counsel and help. He has saved me from many a pitfall in an enterprise which for one with a very limited knowledge of architecture has proved, and may still prove, to have been rash. Where I have erred it will have been from not making still greater demands on his patience and sympathy. The Archdeacon of Westminster has kindly consented to append a note on the Compotus Rolls of the Warden of the Lady Chapel.

[1] *Westminster Abbey and the King's Craftsmen*, p. 143.

## APPENDIX

*The Account-rolls of the Lady Chapel. By the* ARCHDEACON OF WESTMINSTER.

The set of compoti dealing with the Lady Chapel of Westminster is not the most complete series which the Abbey possesses, but it is full enough to be of great value and to give a fairly continuous idea of the administration of the chapel. It will be understood that the presentation of annual account-rolls became necessary as soon as the Lady Chapel found itself endowed, but there are few such rolls dealing with any Westminster office before 1298.

The series is numbered *Mun.* 23179–23317; that is, it consists of 139 documents; but some of these are duplicates, or 'parquos', and a few are not account-rolls but priceless inventories of the chapel's effects in a given year. Stated in another way, the meaning of the series is that, beginning in 1298, we can compile a list of 66 'Custodes Capelle beate Marie', while from other earlier sources we can pick up the names of nine more, the earliest of these being Robert de Molesham, who became Prior in 1189, and in whose day the officer was called 'Custos Altaris b. Marie' or 'Procurator Altaris'.

It may be of interest to give a conspectus of the contents of the first roll (*Mun.* 23179), which deals with the period 30 Nov. 1298–30 Sep. 1299 and has on its dors. the accounts for 30 Sep. 1299–30 Sep. 1300. The receipts begin with some arrears of rents (£4 10*s.* 11½*d.*) paid in by Brother Thomas de Chicelden or Chyselden, the Custos of the year before, of whom our only other information is that he was in the infirmary during 1297–8.[1] The new Custos is Robert de Bures, brother of that Roger de Bures who in 1303 was to incur two years' imprisonment for burglary; he was himself implicated in the crime, or the accusation of it. He collected rents amounting to £16 7*s.* 1*d.* from Westminster, the City of London and the suburbs, together with smaller sums from Knightsbridge, Greenford, and Pendock, near Pershore; total £17 14*s.* 9*d.* There were also 'firme' from pasture-land at Estgrave (Kensington) and from land at 'Colieres-hegge & Tothull' (Westminster), 27*s.*; and a further item of 4*s.* 3*d.*, which included 3*s.* 'de oblacionibus in capella per annum'. The whole resources of the chapel for the year thus amounted to £23 16*s.* 11½*d.*

The expenditure is arranged under the following heads:

*Debita soluta*,—a payment of £1 6*s.* 8*d.* to William le Maserer, citizen of London, to redeem a gold buckle pawned by Brother T. de Chicelden.

*Redditus soluti*,—rents of 1*s.* and 2*s.* 3*d.* respectively handed to the bishop of Sarum and to the abbot (Walter de Wenlok),—3*s.* 3*d.*

*Expense necessarie*,—114 lb. of wax, at 9*d.* a lb.; 7½ gallons of oil at 10*d.*

[1] *Monks of Westminster*, p. 72.

a gallon; wages of the chandler and his assistants; cords for the lamp and the chapel windows, &c.,—£5 5*s.* 2¾*d.*

Thus though the period of the account follows fairly closely upon the date of the great fire, 29th March 1298, which spread from the palace and ruined a large part of the convent, the damage, if any, incurred by the Lady Chapel must have been made good by Michaelmas; but more probably the chapel escaped injury, the course of the fire lying to the south of it and affecting the infirmary and parts adjacent.

*Distribucio pauperum*,—purchase of bread (£3 17*s.* 3*d.*) for the poor on the five Feasts of the Virgin Mary, and on the anniversary of Prior Robert (de Molesham), which occurred on the morrow of the Feast of the Conception;[1] also one halfpenny each to various servants for bell-ringing the same day,—£3 19*s.* 7*d.*

*Expense custodis et clerici*,—clothing for the warden and a halfpenny a day for the clerk,—£1 13*s.*

*Custus domorum*,—repairs to houses and stables in Tothull and Langediche,—£1 6*s.* 6*d.*

*Minuta*,—sundries such as a 'tabula facta et depingenda' for the Mary altar; a beam placed 'ex transverso capelle que sustentat cereos super magnam trabem'; the cleaning of two pillars with angels holding candles; the painting of a door in the chapel 'versus curtilagium beate Marie'; two new candelabra to stand at the foot of Abbot Richard de Berkinge's tomb; and payment to the 'lotrix' for washing the chapel ornaments,—£1 6*s.* 2*d.*

*Senia* (= *xenia*[2]) *et curialitates*,—complimentary gifts (here also called 'municiones') to the abbot (12*s.* 3*d.*) and the prior (2*s.* 6*d.*); payments by the warden to various 'socii' for celebrating and singing 'ad missam beate Marie'; a gift to the sub-prior and his brethren when they went to Combe for a change of air (1*s.* 4*d.*); and 2*s.* to Brother Gilbert Rauel, sub-sacrist,—£1 7*s.* 6*d.*

So the total outlay was £16 7*s.* 10¾*d.* and there remained £7 9*s.* 0¾*d.* to the good.

Such is the plan of reckoning at the point where the series begins; it may be tested at any year in the next two centuries and will not be found to vary much. In 1463–4, for example, there were 119 small rent-charges amounting in all to over £49, and the total receipts are £51 7*s.* 10*d.* The illumination of the chapel now costs £6 2*s.* 5½*d.*, and care is still taken to keep the chapel ornaments in a worthy condition; e. g. 'pro j pecia albi satyn pro redellis in capella et aliis oportunis et necessariis', 16*s.* 8*d.*; and it appears that the statue of St. Mary Magdalene has a hanging lamp which needs a new chain. But otherwise there is little except size and script to distinguish the fifteenth-century compotus from its earliest predecessor.

[1] *Customary*, ii, 92.

[2] Cf. *Monks of Westminster*, p. 21 f.

III.—*The Origins and Forms of Hertfordshire Towns and Villages.* *By* William Page, *Esq., Vice-President.*

Read 16th May 1918.

The study of Topography from the point of view of types and positions of settlements has hitherto received little attention in this country, although it often throws light upon difficult historical problems. Professor Maitland has summed up our knowledge of this subject in his characteristically brilliant and suggestive manner. He has pointed out that we are learning from the ordnance map, 'that marvellous palimpsest', that 'in all probability we must keep at least two types before our minds. On the one hand there is what we might call the true village or the nucleated village. In the purest form of this type there is one and only one cluster of houses. It is a fairly large cluster; it stands in the midst of its fields, of its territory. On the other hand we may easily find a country in which there are few villages of this character. The houses which lie within the boundary of the parish are scattered about in small clusters; here two or three, there three or four.'[1]

Speaking generally, the latter type, the scattered, dispersed or hamleted settlement, is, as regards this country, Celtic in origin and no example of it occurs in Hertfordshire. All the settlements in this county are of the nucleated or clustered type, and may be subdivided into four classes, namely, (1) settlements off the lines of communication, (2) settlements on lines of communication, (3) settlements formed round an open or enclosed area, or ring fence, and (4) settlements of a fortuitous character frequently established round a church.

The first of these classes of nucleated villages, that off the lines of communication, whether road or river, is undoubtedly Teutonic in origin. It was the form of village adopted by the Teutonic immigrants of the sixth and seventh centuries, who were an agricultural people and chose their settlements and laid them out purely with regard to agricultural convenience. The selection of the site was not made at haphazard. It was essential, of course, that it should be either on a water-bearing stratum or near a stream. The village, with its self-

[1] *Domesday Bk., and Beyond*, p. 15. Mr. J. H. Round has approached the subject of the settlement of the South and East Saxons by a different method, namely that of place-names, in an article in *The Commune of London*, pp. 1-27.

contained community ruled in a patriarchal manner, was placed on high land at a convenient distance, anything from a quarter of a mile to a mile, off a road or river and overlooked its territories which sloped away from it. This position was chosen both for protection and that the village might be in the midst of its territory. The lord's residence, subsequently the manor house, was on the highest part of the village, and when in the tenth and eleventh centuries

Fig. 1. Plan of the Parish of Bygrave, near Baldock; showing nucleated village off high road.
*Reproduced by permission of the proprietors of the 'Victoria History of the Counties of England'.*

the modern system of parish churches, serving a limited area, was adopted, the church was built by the lord, adjoining his dwelling-house.

The least changed settlement of this class in Hertfordshire is Bygrave near Baldock (fig. 1). Here we have the parish which possibly represents approximately the territory of the original settlement, bounded by the River Ivel on the west, Icknield Way on the south, a field boundary on the north, and a stream, which gave the water-supply to the community, on the east. The village lies in the midst of the territory on the highest part of the parish off the two ancient roads. The site of the manor house and the church are inclosed

by a moat, and the small village lies along the street to the west. Immediately around the village are the inclosed pasture lands, and beyond them to the parish boundary are the open arable fields of nearly 1,000 acres without hedge or fence. Across these run the uninclosed roads or driftways connecting the village with the main high roads. It will be noticed that the parish boundary extends to the west side of Ermine Street in order to obtain water-power from the River Ivel for the manorial mill.[1] This parish forms one of the most interesting survivals of a primitive self-contained settlement in England.

Another example which may perhaps be given is Benington, a nucleated village off the River Beane which lies to the west of the village. Here was a Saxon lordship which had many members attached to it, as we learn from the Domesday Survey. The manor house called the Lordship, built on the site of a medieval castle, and the church lie together encircled by the outer moat of the castle; the village with its green is a little way off. A similar arrangement of the moat of a castle or manor house inclosing the church exists also at Anstey and Pirton in this county.

The great manor of Hatfield, which was given by King Edgar to Ely about 975, is a nucleated village off the River Lea. Here the church adjoins the remains of the former manor house.

Great and Little Hormead are nucleated villages off the road from Braughing to Cambridge, here called Hare Street. In both, the churches lie next the bury or manor house. Numerous other examples of this class exist in the county, particularly in the north-east and middle parts.

The second class of settlements, those on lines of communication, comprises the numerous market towns and lesser roadside settlements apparently of the tenth century and later. The market towns are similar in type. The market-place, usually in the shape of an elongated V, is formed by the widening of the road at one end. The church and other important buildings are grouped together at the base or on one side, while the rest of the space around the market-place is divided into *placeae* or plots which have narrow frontages on the market-place or street, and long strips of land running back to the borough boundary.

The town of St. Albans (fig. 2) is a good example of this class of settlement. The lay-out of the town established here by Abbot Wulsin about 950 still survives. In the centre of it is the market-place, formed by widening the road on the north side of the abbey precincts, so that it tapered northward towards St. Peter's church. The abbot divided the frontages on this road into convenient lengths, having a depth running back to a line which became the borough boundary. The plots of land thus formed were taken by prospective burgesses,

[1] *V. C. H. Herts.*, iii, 211–17.

and, with the assistance, as we are told, of grants of timber and material from the abbot, houses were built fronting on the market-place.[1] The plots were

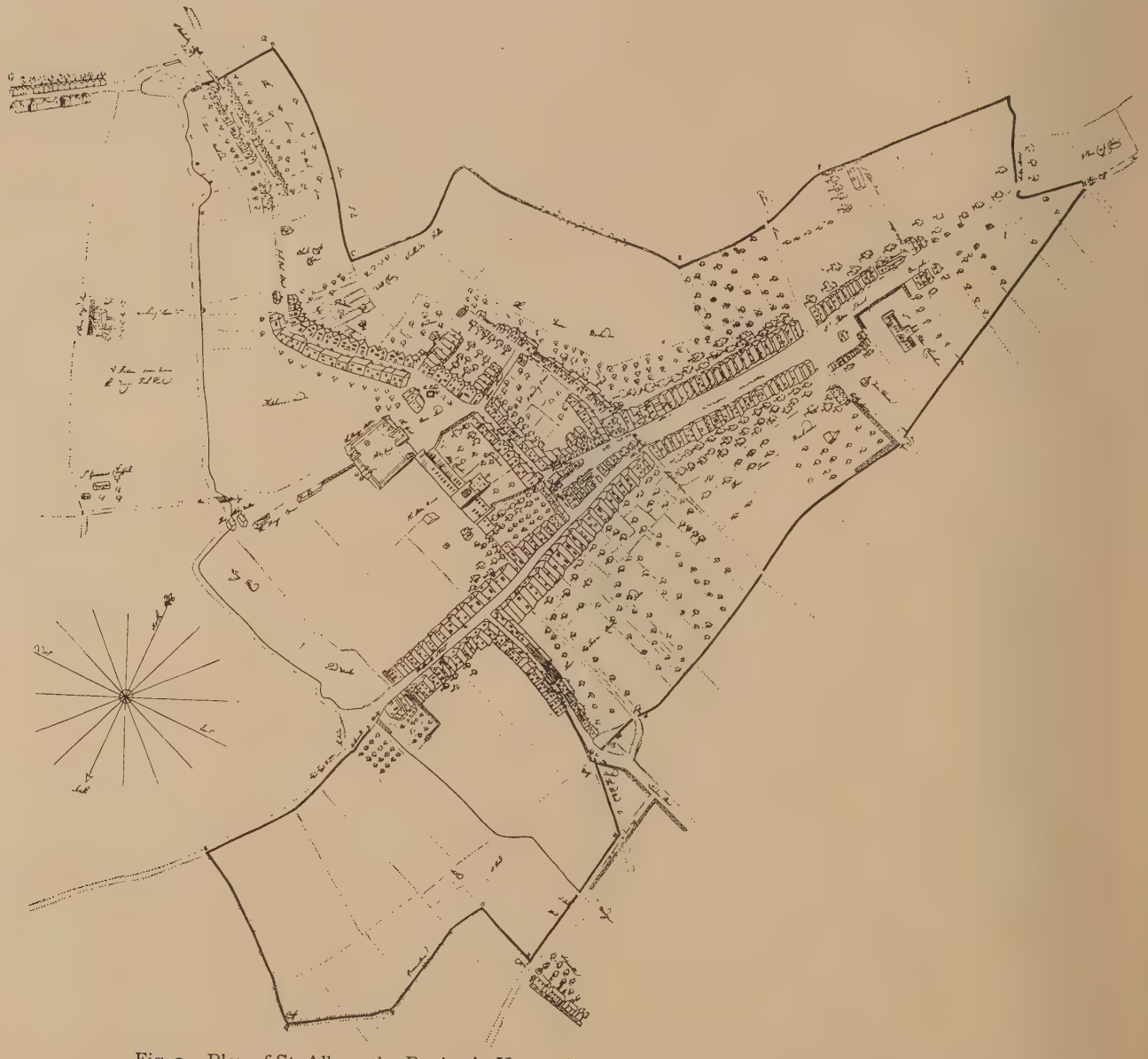

Fig. 2. Plan of St. Albans, by Benjamin Hare, 1634; showing elongated V-shaped market-place.

not of equal size, and of course as time went on two or more became united and again subdivided. The extent of the borough was defined by a boundary ditch called Tonman's Dyke, which may have been defensible. This ditch

[1] *Gesta Abbatum Mon. Sancti Albani* (Rolls Ser.), i, 22.

existed in the twelfth century and possibly goes back to the time of the foundation of the town. In later times crosses were erected at the entrances to the town and at the points where the direction of the boundary changed. The market-place was divided into spaces for booths and stalls for different goods. Thus we have references to the Flesh Market, the Fish Market, the Malt Market, Wool Market, Coblers' Row, Wheat Cheaping, &c. The groups of stalls, which at first were temporary, gradually became permanent structures and eventually houses or shops. Thus we have the encroachments on the Market Place at St. Albans, and the houses, courts and alleys between Chequer Street on the east and French Row on the west. These permanent buildings seem to have existed as early as the fourteenth century.

The adoption of this type of market town continued certainly as late as the fourteenth century, and we have several other instances of it in Hertfordshire. At Berkhampstead on Akeman Street there was apparently a pre-Conquest market at Northchurch or Berkhampstead St. Mary, which, after the castle was built, was moved to its present site at Berkhampstead St. Peter or Great Berkhampstead. Here, as at St. Albans, a part of the market-place has been built over. Tring, a similar market town on Akeman Street, possibly grew up after the Conquest, as it is not mentioned in Domesday.

Hitchin (fig. 3) was formed as a market town probably in the tenth century, when St. Albans and many other towns were established. It stands at the intersection of the road later known as the Great North Road and the Icknield Way. The large market-place, now built over, is on the Icknield Way and is formed in the usual manner by the widening of the road at the south end. Hitchin was an important place in the Saxon period and the head of a great lordship. Its church was described as a minster in 1086, the places within the lordship being for long chapelries to it.

Watford, which is not mentioned in Domesday and first appears as a market town in the time of Henry II, has a similar lay-out.

About 1179 Royston Priory was founded at the important crossing of the Icknield Way and Ermine Street, in the midst of this barley-growing country. A trading town immediately arose under the shadow of the priory in the parishes of Barkway and Therfield in Hertfordshire, and Kneesworth in Cambridgeshire, and a market and fair were granted to the prior in 1189. We here see the lay-out of a twelfth-century market town, which is on the same lines as that of the tenth century already described. We have the widening out of the highway forming the market-place, which has now become built over and the market transferred to another site. The houses on either side of the ancient market-place had their narrow strips of gardens, or backsides as they were termed, which ran back to the town boundary.

Baldock, at the crossing of the Stane Street and Icknield Way, is another market town of the same type to which a definite date of foundation can be given. Its site was formerly in Weston parish, but the Knights Templars, about 1199, built a town here, giving it the name of Baldock, which, according to Skeat, is equivalent to Baghdad,[1] and received a grant of market and fair. It is curious that the market-place is not on the Roman Stane Street but on the road from Stevenage, which here runs almost parallel to it. This would indicate that

Fig. 3. Plan of Hitchin; showing elongated V-shaped market-place, built over.
*Reproduced from the Ordnance Survey Map, by permission of the Controller of H. M. Stationery Office.*

Fig. 4. Plan of Buntingford; showing lay-out of fourteenth century market town.
*Reproduced from the Ordnance Survey Map, by permission of the Controller of H. M. Stationery Office.*

the Stevenage road was then the ordinary route from north to south. It is undoubtedly ancient and has some characteristics of a Roman road.

Although Buckland is only a short distance from Royston it was evidently thought that the prosperity of the barley and malt trade of the district could afford further market accommodation, and in 1258 the lord of the manor of Buckland had a grant of a market which was never very successful. A little earlier, in 1252, the lord of the manor of Popes Hall in Buckland also received a grant of market and established a market-place at a point on the Ermine Street, afterwards called Chipping. This market had no better success than Buckland, and in 1360, Elizabeth de Burgh, lady of the manor of both Popes

[1] Skeat, *The Place-names of Hertfordshire*, p. 59.

Hall and of Buntingford, obtained licence to transfer the market from Chipping in Buckland to Buntingford at the place where the road from the Pelhams to Baldock and the River Rib cross Ermine Street. Here the town of Buntingford (fig. 4) was successfully established. Again we have the lay-out of a fourteenth-century market town which is on precisely similar lines to those previously described. There is, however, an interesting development common at this date. It will be noticed that the road from the east joins the Ermine Street at the south end of the market-place, while the old road from the west joins it at the north end of the market-place, thus compelling all cross-country traffic going east or west to pass through the market-place and pay toll.

Another form of the nucleated settlement on the line of communication was the double town with a settlement on each side of a river. The object in adopting this type of town was to secure the bridge-head. This same principle applied to the numerous towns, such as Bedford, Stamford, Buckingham, and others, established by Ethelfleda, the lady of the Mercians, and Edward the Elder. Although built for military and administrative purposes these towns naturally developed into trading centres. We are told that about 913 Edward the Elder during his campaign against the Danes established a 'burh' at Hertford (fig. 5) between the Rivers Mimram, Beane and Lea, and in the following year he wrought the 'burh' on the south side of the Lea.[1] Although the two towns had apparently merged into one by 1086[2] there survived the two market-places, the one on the north side of the Lea at the Old Cross, and the other on the south where the Town Hall now stands. The towns were formed around the market-places which are made by the widening of the roads now known respectively as St. Andrew's Street and Fore Street.

Although we do not find the double town with separate market-places as at Hertford elsewhere in the county, yet all the important trading towns which have grown up at fords and bridges over the Lea and Stort have their bridge-heads. This is particularly pronounced at Sawbridgeworth (fig. 6) and Bishop's Stortford, where the county boundary follows the River Stort except where the east and west roads through these towns cross the river, and here the county boundary projects by a tongue of land into the east or Essex side of the river. The object is the protection of the bridge or ford and the enforcement of the payment of tolls. Both these towns have similar characteristics. The market-place, now built over, at each town was square, and is placed in relation to the crossing of the river and not to the road. At Bishop's Stortford the road crossing at the ford was the Roman Stane Street, but at Sawbridgeworth the highway is not Roman. It may therefore be argued that as the settlement was made

[1] *Anglo-Saxon Chron.* (Rolls Ser.), i, 186–7; ii, 78.
[2] Domesday Book, fol. 132; *V. C. H. Herts.*, i, 300.

Fig. 5. Plan of the Town of Hertford, from Turner's *History of Hertford*, 1830; showing a double town.

for the ford, the road must have been constructed before the settlement. Stanstead St. Margaret or Little Stanstead probably formed the bridge-head to Stanstead Abbots. The same arrangement occurs at Ware, standing on the north side of the Lea and including within the borough boundary a piece of land on the south side at the crossing of the river.

Another development was caused by the migration of the inhabitants of nucleated villages off the highways to roadside settlements in order to obtain the trade from the traffic which was to be found there. We have a good example of this at Stevenage (fig. 7). Here the old church of St. Nicholas, the Bury or the ancient manor house, and a few cottages, lying about half a mile to the east of the

Fig. 6. Plan of Sawbridgeworth; showing bridge-head formed by county boundary.
*Reproduced from the Ordnance Survey Map, by permission of the Controller of H. M. Stationery Office.*

Great North Road, form the site of the original nucleated village. Some time before the grant of a market in 1281, a roadside settlement was established, where at the fork of the road was the market-place. By the fourteenth century, and probably before, the roadside settlement was a flourishing town and had overshadowed the original village, which was left more or less deserted.

Redbourne is another interesting instance of this development: the original settlement off Watling Street is at Church Town or Church End, while the roadside settlement formed apparently after the Conquest is at Street Town. In the same way the original settlement off the highway at St. Paul's Walden, now consisting only of the church and a few cottages, has its populous roadside settlement

at Whitwell. North Mimms, in Hertfordshire, now consisting only of the church and manor house in North Mimms Park, was a nucleated settlement off the

Fig. 7. Plan of Stevenage; showing early settlement near church and later market-town.
*Reproduced from the Ordnance Survey Map, by permission of the Controller of H. M. Stationery Office.*

highway, and has its roadside settlement at South Mimms in Middlesex, which was well established before the Conquest. A similar example perhaps is that of Waltham Abbey, in Essex, which apparently has its roadside settlement at

Waltham Cross in Hertfordshire. The original settlement at Thundridge, now consisting only of the church and Thundridgebury, has its roadside settlement at Wadesmill, and numerous other instances could be quoted.

The third class of nucleated villages is found round an open or inclosed area. It is usually associated with forest land and is of late formation, being in many instances post-Conquest. We find it in the forest districts of Surrey and Sussex and also in Middlesex. The village of Greenford in Middlesex (fig. 8) is a good

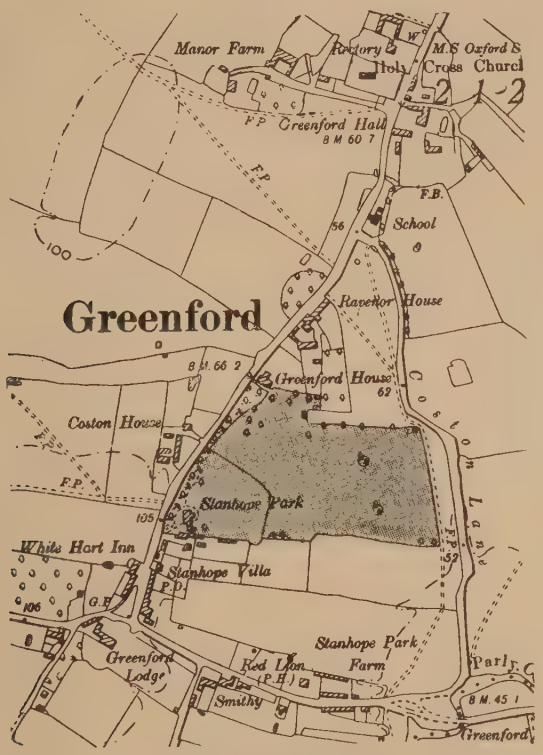


Fig. 8. Plan of Greenford in Middlesex; showing a ring-fence settlement.
*Reproduced from the Ordnance Survey Map, by permission of the Controller of H. M. Stationery Office.*

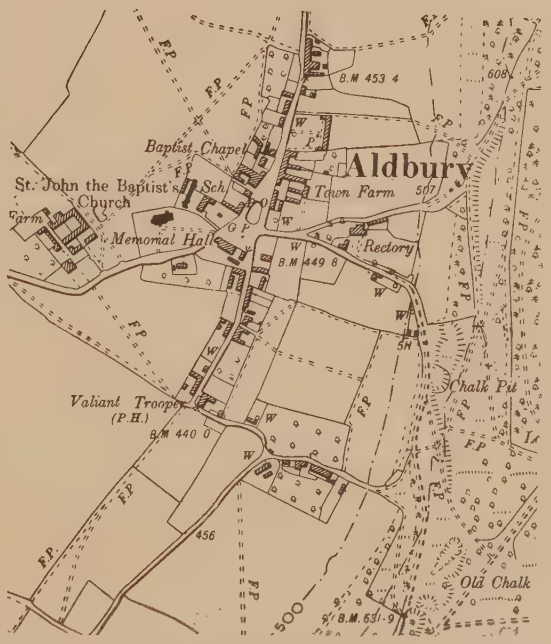


Fig. 9. Plan of Aldbury in Hertfordshire; showing a ring-fence settlement.
*Reproduced from the Ordnance Survey Map, by permission of the Controller of H. M. Stationery Office.*

example, and in Abbots Langley, Aldbury (fig. 9), and Northaw in Hertfordshire we can trace a similar lay-out.

The settlements of a fortuitous character where the village has grown up round the church are numerous in the western side of the county; St. Peter's, St. Stephen's, St. Michael's in St. Albans, and Sandridge may be mentioned among others.

It is difficult to assign dates for the settlement of the district now known as Hertfordshire. There is probably no town or village in the county which has had a continuous settlement on its site since the Late Celtic or Romano-British

period, nor, apparently, has any name except Verulam survived from that time. This leads us to the conclusion that the Teutonic invaders, who came over in the middle of the fifth century, before making their settlement in this district, drove out the Celtic population, otherwise Celtic place-names would have survived.[1] When the Saxon settlements therefore began, this district was very thinly populated. The north was open country providing excellent corn lands, but the south was forest land, the western side being part of the Chiltern forest, and the south and south-east being parts of the great Middlesex and Essex forests and on stiff clay unsuitable to early agricultural settlers. Probably the invaders pushed forward westward and had many years of fighting before any organized system of settlement was made here; and it was possibly not until after the check to their arms at the battle of Mons Badonicus early in the sixth century, that permanent settlements began. The East Saxon kingdom was perhaps formed in the early part of the sixth century, although the first we hear of it is towards the end of that period. Unfortunately, archaeology assists us little in determining the dates of these settlements. At Wheathampstead, an early nucleated settlement off the line of the Roman road from St. Albans to Colchester, interesting remains of a Saxon burial were found in 1886 to which the probable date of 628–634 has been attributed. At Redbourne, which is also an early nucleated settlement off Watling Street, a cemetery was discovered in medieval times, to which Mr. Reginald Smith gives a similar date.[2] As far as Essex and south-eastern Hertfordshire are concerned, the Saxon immigrants came up the waterways from the Thames. The early settlements here are made in relation to the rivers, but when the upper parts of the rivers cease to be navigable, such settlements were established off the Roman roads.[3]

As the country became more settled, territorial organization took the place of family rule. The village became less self-contained as trade and communication were established. Hence the commercial advantages of settlements on lines of traffic became recognized. No doubt the growth of trade was gradual, but in the district with which we are dealing an impetus was given to the

[1] The peasants in the west of Hertfordshire are said by Mr. Mackinder to be of Celtic type (*Britain and the British Seas*, 190, 191). It is possible some of the Celtic population may have survived in the forest district there. A small church was founded by the Romano-British Christians outside Verulamium where St. Albans Abbey now stands, and early writers imply that it had a continuous existence. This possibly served a small body of inhabitants and thus the Celtic names of Verulamium and the River Ver were perhaps retained (*V. C. H. Herts.*, iv, 283, 286, 387).

[2] *Proceedings*, xviii, 110; *V. C. H. Herts.*, i, 253, 256.

[3] It is clear that the River Lea and not the Ermine Street on its west side was the Saxon line of communication southward of Ware, for the Roman road was at an early period abandoned and superseded, as it still is, by the road connecting Cheshunt, Amwell and Ware, on which, at the date of the Domesday Survey, were the important trading towns of Cheshunt and Hoddesdon.

establishment of trading settlements by the commercial influence of the Danes in the ninth and tenth centuries. Trade required protection, and hence the walled Roman towns, which in many instances had for long been deserted, were again inhabited as market towns, but Verulamium, the only important Roman town in Hertfordshire, afforded no special advantages for trade. The River Ver was not navigable, even for the trading vessels of that date, and the town was not in a good defensible position, being commanded by higher land on the south side.[1]

Increased traffic brought new roads to carry the growing trade of the country, and on these roads settlements arose. As Professor Mackinder has indicated, the positions selected for market towns were at points of 'nodality' the intersection or uniting of two or more roads, or a way over some obstruction upon which roads converge, such as a ford, bridge, or defile, or again for the supply of a population brought together by the needs of a monastery, castle or industry.[2] Although this was so in the case of many Hertfordshire towns, yet in some the attraction was merely the traffic of the road.

In the west and south of the county, however, the development was different. The larger Benedictine houses were the great land-developing corporations of their day. Christchurch, Canterbury, reclaimed the Romney marshes; Crowland and Peterborough drained the Fens; and Westminster and Worcester cleared the forests of Worcestershire. No doubt Offa II desired to atone for the murder of Ethelbert when he founded the monastery of St. Albans in 793, but he also wanted to get the forest wastes of western Hertfordshire settled, or, to put it in another way, these unsettled wastes were available for the endowment of the monastery. He therefore granted to the monastery a great undefined area in this district described in the very doubtful early charters of the abbey as so many 'mansiones'. The abbey being liable to attack from evil-disposed people lurking in the forest and the ruins of Verulamium, Offa probably established the fortified borough of Kingsbury to the north of Verulamium and west of St. Albans Abbey, where, we are told, the king's officers kept the king's peace.[3] The earthworks of this town could, up to a few years ago, be traced, and showed one ancient entrance only towards the Abbey, and a bulwark or 'propugnaculum' on the same side. This town was destroyed when the present town of St. Albans was founded.

There was apparently no systematic clearance of the forest land in western Hertfordshire until the middle of the tenth century, when Abbot Wulsin built the

[1] We have lately had two important works treating of town planning from the historical point of view. Professor Haverfield has dealt with ancient town planning, and Professor Tout with medieval town planning, particularly those of the thirteenth-century bastide type which came to us from France. In Hertfordshire no such towns exist; we have only villages and small market towns which, for the most part, grew out of them.

[2] *Britain and the British Seas*, p. 329.

[3] *Gesta Abbatum Mon. Sancti Albani*, i, 122.

churches of St. Peter, St. Michael and St. Stephen,[1] and attached to them large parishes, which were also jurisdictional areas. A further and more effective attempt at clearance was made in the middle of the eleventh century by Abbot Leofstan, who, we are told, cleared the woods from the confines of the Chiltern district almost to London, and secured the safety of travellers and pilgrims to St. Albans by repairing Watling Street.[2] It was at this time probably that settlements were made at Sandridge, Abbots Langley, Rickmansworth, Cashio and Bushey, but the district was still wooded, and Flamstead and Aldenham were held by the service of protecting travellers as they passed along Watling Street through the dense woods here.[3] This brings us to the time of the Domesday Survey, which shows how little settled the south-western part of the county then was.[4] It will be noticed that Barnet, or La Barnet as we find it, Sarratt, Northaw, and Ridge are not mentioned in the Survey. Barnet and Sarratt, according to Skeat, are French names, and therefore these settlements are doubtless of post-Conquest origin.[5] The development of this district was still going on in the thirteenth century, when the abbot of Westminster was dividing his great manor of Wheathampstead into holdings of a carucate or 120 acres, upon which houses were built and hamlets sprang up. The large manors of Aldenham and Hatfield were being developed in the same way but not so systematically.

Thus the villages and towns of Hertfordshire have grown up. Their development was arrested by the Black Death of 1349, which left a dearth of tenants that brought about the decay of many villages. A little later, by the depopulations caused by inclosures in the fifteenth and sixteenth centuries, the growth of villages was again arrested. There are instances at this time of villages being entirely destroyed.[6] Thus matters stood till the sixteenth century, when the act forbidding cottages to be built without having four acres of land attached to them,[7] effectually stopped the extension of villages. This act remained in force until the latter part of the eighteenth century, so that except for modern developments most of our villages retain their medieval plans.

The same process of settlement and expansion still continues along the lines of communication. Boreham Wood and Radlett on the Midland Railway are both growing into towns, and similar instances of the growth of villages along all our railway systems could be quoted. At first our ancestors sought protection in the choice of their settlements, but later traffic and trade were the factors which ruled the selection of the sites for their habitation.

[1] *Gesta Abbatum Mon. Sancti Albani*, i, p. 22. [2] *Ibid.* 39.

[3] *V. C. H. Herts.*, ii, 149, 150, 194.

[4] This is clearly shown by the Domesday map of the county in *V. C. H. Herts.*, i, 300–1.

[5] Skeat, *The Place-names of Hertfordshire*, pp. 60, 64.

[6] *V. C. H. Herts.*, ii, 285. Pendley in Tring, a town containing many tradesmen, tailors, shoemakers, card-makers and others, was destroyed and laid to pasture. [7] Stat. 31 Eliz. cap. 7.

IV.—*A Roll of Arms belonging to the Society of Antiquaries, temp. Henry VIII: c. 1540.* By Mill Stephenson, *Esq. F.S.A., and* Ralph Griffiths, *Esq., F.S.A.*

Read 20th June 1918.

The roll of arms which is to be dealt with in this paper was presented to the Society by our Fellow Mr. John Bilson, under date 21 January 1905. *Proceedings*, xx. 272, states that 'John Bilson, Esq., F.S.A., exhibited and presented on Illuminated Roll of Arms (Heliotype on the beginning) of a date circa 1530 with 250 shields arranged in rows of five each.' At the meeting was one for the election of fellows, no discussion upon the roll took place, nor has any action been taken of it since. The description given in *Proceedings* as above is somewhat misleading, as will be seen hereafter. The roll was exhibited by the Society in 1906 at the exhibition of objects of British Heraldic Art at the Burlington Fine Arts Club, being no. 12 in case A, described on page 3 of the Catalogue, though not quite accurately. It excited much interest and induced us to think that a complete publication of its contents might be of value.

From internal evidence the roll seems to be of the time of Henry VIII, and, as will be seen later, it may be possible to suggest a limit of years more narrow than 1509 to 1546–7, the regnal years of that monarch. Of the history of the roll nothing is known save that, from a statement at its foot, it was once the property of 'William le Neve Clarenceux.' He was clarenceux from 1635 and died in 1661.

The roll consists of two skins of vellum varying in length. The present length of the roll is 18 ft. 2 in. and its width is 11¼ in. On the front were originally depicted 50 rows of shields, each row containing 5 shields. Each row has been numbered in the dexter margin. At some time prior to its coming into the possession of the Society it was mutilated and two rows have been cut off along the top, leaving rows 3 to 52 only.

Each shield has the name of the family above it and very often the reign in which the arms were used and the county to which the family belonged. In many cases there is a precise indication of the particular person whose arms are represented. All the shields save two on the front of the roll have been emblazoned in their proper colours. The makers first drew the arms and marked the vellum in ink and then the shields were painted. At times these indications

in ink show through the colour and afford useful assistance in emblazoning some of the shields where the colour is uncertain.

Including one shield in trick and one blank shield there are 245 shields on the front of the roll. The one in trick is of some interest and will be dealt with separately.

The back of the roll is much rubbed. Starting from the end of the fifth skin there is a blank space of 14 in., then four rows of shields in colour. These, which form rows 52 to 55, have possibly been added by another hand, as there is then a blank of 35 in., which brings us to the back of the third skin, where shields are found by the same painter as the shields on the front. The total number of shields on the back is 175 and the rows are numbered from 52 onwards. When the first skin is reached it is found that the part cut off has contained the lower half of shields in the 86th row and all that were below it. Sufficient is left of the shields in the 86th row to determine with some certainty what they were. The whole roll thus gives 420 shields in 84 rows.

All the shields in the roll save those in rows 52 to 55 are of distinct artistic merit, very carefully drawn and well coloured. The state of the roll is fair though there are some holes in it, but, allowing for its age and for the natural wear and tear of a roll, it is in quite good preservation. It should be remarked that one or two of the shields have been tampered with if not entirely repainted. These are nos. 6, 7, and 10, as will be mentioned in the detailed description. There are in the roll only two impaled coats, nos. 158, 304, and only one quartered coat, no. 112, for no. 13 is only in trick, and no. 10 has been tampered with and is a late addition.

The first general observation which occurs to the mind is that a large number of the shields are intricate and full of charges. It has often been the subject of comment that modern shields are so elaborate and intricate as compared with the earlier ones. But it may be observed that the heralds, even in the time of Henry VIII, were in a considerable difficulty, as they were called on to assign arms to various persons of humble origin who had risen to wealth and power by their own personal exertions, helped by the ruin of many great families in the troubles of the recent reigns. Practically all the changes that could be rung on the ordinary heraldic charges had been monopolized, and they could only, if they were to grant arms for distinction, add the distinctive note by multiplying the charges combined in the shields. It may partly have been a question of taste, but it was much more a question of necessity. But in whatever way it arose, it certainly was not a thing confined to the heralds of the eighteenth and nineteenth centuries. It may be observed, however, that so overcharged were some of these Tudor coats that the families to whom they were granted were forced in after years to abandon some of the charges.

The first general observation leads to a second, which is that the roll consists entirely of the arms of ordinary country gentlemen and the middle class merchant, and does not contain any arms of peers except so far as bishops and abbots were peers. But it is to be observed that the bishops and abbots whose arms appear all belong to the middle classes or the lower orders, for which reason the roll is of special value. So far as can be traced, no roll of this nature and of this date has been printed. The only roll of its date is the roll printed by Mr. Willement in 1829, but that was of the peers of the parliament of 1515. Yet for genealogical and heraldic use a roll of the time of Henry VIII is of great importance, giving as it does a clue to various coats of arms on monuments and in stained glass up and down the country which have not been at present identified with certainty.

Our roll, then, is mainly a roll of English gentlemen. It does, however, contain five foreign coats. The first of these is no. 88, ascribed to Cavalcanti. John Cavalcanti, a Florentine merchant, whose numerous financial transactions with king and court are set out in the State papers, was appointed a gentleman usher to Henry VIII and obtained an augmentation to his arms in 1520. The foreign flavour of the coat comes from its being semy of crosses.

The next is no. 104. This is of extraordinary interest. It was originally granted in 1518 to an Englishman, Geoffrey Chamber, by Caesar de Riario, patriarch of Alexandria, bishop of Malacita, and a bastard of pope Sixtus IV. No doubt this Englishman was in 1518 in the patriarch's service, but on returning to his native country Chamber in 1528 petitioned for a confirmation of these arms, he being then of Stanmore, Middlesex. This was allowed by the heralds. The coat is distinctly foreign, as the popinjays are looking behind them. This was so out of the ordinary that originally the draughtsman drew the birds in the ordinary position and afterwards corrected his drawing and painted the birds as they now appear. Moreover, on the chief appears the serpent of Milan 'swallowing an idol', to use the words adopted by our heralds in their confirmation.

The third foreign coat is no. 105, ascribed in the roll to Dermensa, a Spaniard of the time of Henry VII. The coat appears to be Spanish as it shows fifteen hearts inverted, arranged in a pile from the chief and in a bordure. So far no particulars have come to light about this Spaniard, who may have been in the train of Queen Katharine.

The fourth foreign coat is no. 203, assigned on the roll to Veillelobos, to which has been added 'Hen. VII'.

The demi-rose on the quarter suggests that the bearer was in the royal household. The coat without the quarter is that of Villalobos of Leon and Portugal. Sir Ferdinando de Villa Lobos, a Spaniard, was knighted at the marriage of

Prince Arthur, 14 November 1501. The coat appears under the name Vellowes in early editions of Burke's *Armory*: from thence it has been imported into Papworth, p. 151, column ii.

The last foreign coat is no. 288, ascribed in the roll to Escurissaga, a name which up to the present has defied all researches. The shield is particularly interesting as showing an object to which many plausible names might be given. It may be a hand cresset or a firework. Here again the demi-rose suggests some royal patronage.

It may now be convenient to select a few special coats for notice, and the first of these will be no. 13, which is particularly marked by various circumstances. It is in trick only and has never been finished. It is a much larger shield than any other on the roll and is quarterly of 8. It also has above it a motto (the only one on the roll), 'Loyaul en service'. It is quite clear, then, that this shield was intended to be the principal item of the roll and a distinguishing mark of it. It can be attributed to Sir Henry Amcotts, citizen and fishmonger of London, who was sheriff in 1542 and mayor in 1548, and if this attribution is correct it stamps the roll as being closely connected with the city of London, which connexion is indeed emphasized by other shields in it, as will be pointed out below.

Another shield calling for special mention is no. 79, assigned to Clarke, *temp.* Henry VIII. This has the canton of augmentation granted after the battle of the spurs in 1513 to Sir John Clerk of North Weston, Oxon., by Wriothesley and Benolt on the command of the king. The canton bears a composition from the armorial insignia of Louis of Orleans, Duke of Longueville, whom Sir John captured. For an explanation of this composition, which shows az. two lys of France in chief and in base a demi-ram salient arg. with over all a bend argent, see Woodward's *Heraldry*, ii, 149. The arms of Clarke without the augmentation are on the roll at no. 103.

Another shield, no. 149, ascribed to Holston, *temp.* Henry VIII, is marked by an unusual charge, viz. a burning branch of silver with flames gold. In Harl. MS. 1116 is a description of the arms of William Holston of Suffolk, granted him by Wriothesley and Benolt, 1526, in which is mentioned 'une trison de feu', words which were difficult to understand till Mr. Gambier Howe was good enough to suggest that the word was 'tison', meaning a burning brand or log. As will be seen, the object is drawn as a ragged staff enflamed. This device was used sometimes as a badge and sometimes as a crest by Guldeford of Kent, as appears from the volume of Banners, Standards, and Badges, copied from Mr. Willement's MS., in the Howard de Walden Library, and from pl. xix in the Catalogue of British Heraldic Art, 1916, already alluded to. A similar object is a charge on the shield of Meyrick of Wales.

No. 208 is a shield ascribed to Vaughan, and is distinctively Welsh, as the

fish are each swallowing the iron part of a Welsh spear ('en la facon de galles'). The shield is per pale purpure and az. It has often been thought that the colour purpure is very little used by the earlier heralds, and some persons have been inclined to say that any shield in which that colour appears is suspect. That idea cannot be supported in view of what appears on this roll, and this particular shield is a very good example and can be exactly dated, for the original grant of this coat to Hugh Vaughan, esq., by John Writhe, garter, 4th April 1492, was in 1917 on exhibition at the Victoria and Albert Museum.

An inquiry as to the comparative rarity of green and purple in shields known to have been in use before 1550 might be an interesting one.

Another interesting point arises on shield no. 354, a simple coat of three half-garters, which was granted by Henry VII for good service to Peter of Nerbonne, presumably a foreigner. The fact to remark is that the grant is entered on the Patent Roll under date June 23, 1502, and therein is set forth in French (*gallice* as is often said in the heralds' grants) the arms, the crest, and the mantling.

The last of the coats which calls for special mention is no. 414, that of Smith of the time of Henry VII. It consists of three greyhounds in a shield full of crosses patty fitchy. It has a particular interest to this Society because quite recently one of our Fellows, the Rev. F. J. Eld, presented a shield of arms in old stained glass showing this very coat with quarterings and an impalement. See *Proceedings*, vol. xxix, where the shield is reproduced opposite to p. 204, and vol. xxx, p. 232.

Coming now to more general matters, it is found that the roll contains 21 coats assigned to religious persons. Of bishops, four, viz.: no. 57. John Bell, of Worcester, 1539–43; no. 181. of Exeter, John Veysey, Voysey alis Harman, 1519–54; no. 221. Thomas Ruthall, of Durham, 1509–22–3; no. 348. Thomas Longland, of Lincoln, 1521–47.

It follows that the roll cannot be earlier than 1539. It may be mentioned that the word *episcopus* has been added over no. 8, but this appears to be an error. Perhaps to bishops ought to be added no. 188, which is for Stonywell, who was a suffragan for York, and no. 229, which is for Vivian, a prior of Bodmin, who acted as suffragan for Exeter.

Of abbots there are twelve, viz.: no. 141. John Hawkeborn, of Cirencester, 1504–22; no. 158. Robert Fuller, of Waltham, 1526–38; no. 188. John Stonywell, of Pershore, 1527; no. 190. Edmund Whalley, of St. Mary, York, 1521–9; no. 215. Thomas Ramridge, of St. Albans; no. 226. Thomas Pentecost, of Abingdon, 1514–38; no. 238. Robert Westbery, of Cerne, 1510–22; no. 297. Hugh Farringdon, of Reading; no. 320. John Marlow, of Bermondsey, 14731–516; no. 321. Thomas Newbold, of Evesham, 1491–1513; no. 349, John Malyn, of Waltham, resigned 1526; no. 372. John Fox, of Missenden, 1528.

In all these cases simply the abbot's personal coat is given except in one instance, viz. no. 158, where the personal arms are impaled by the arms of the abbey of Waltham. It is probable that no certain deduction can be drawn as to the date of the roll by the appearance therein of abbeys which were suppressed in 1538, though possibly on a roll long subsequent to that date they would not appear.

The coats of arms of these abbots are mainly distinguished either by birds called holy doves, having a nimbus round the head, or by various flowers; the latter in many cases, as will be seen, give rise to a difficult question as to what the flower is intended to be.

Next to the abbots come priors, of whom there are six, viz.: no. 51. William Bird, of Bath, 1499–1525; no. 229. Thomas Vivian, of Bodmin, 1519–32; no. 284. Gibbs, of Catley; no. 319. Edward Forest, of Lanthony, 1513; no. 395. John Widdisbery, of Worcester, 1507–18; no. 420. John Wastell, of Dunstable, 1500–25. Perhaps, as mentioned above, no. 229 ought to have been placed amongst the bishops, as Vivian was a bishop *in partibus* and acted as suffragan for Exeter.

The next religious persons are deans, of whom there are four, viz.: no. 169. Richard Pace, of St. Paul's, 1516–36; no. 174. John Young, of York, and master of the Rolls, died 1516; no. 182. Thomas Wodington, of the Arches, rector of St. Mary-le-Bow till 1522; no. 242. Thomas Winter, of Wells, 1526, who is supposed to have been a son of Cardinal Wolsey.

Other cathedral and collegiate dignitaries are: no. 102. John Dowman, canon of St. Paul's; no. 142. William Harrington, prebendary of Islington, died 1523; no. 148. William Holgill, master of the Savoy, 1517–49; no. 200. Richard Rawlins, archdeacon of Huntingdon; no. 337. Roger Lupton, provost of Eton, 1503–39.

At the date of the roll many high legal positions were filled by churchmen and there are found on the roll only two persons connected with the law who do not seem to have been ecclesiastics. These are: no. 73. Carill, serjeant-at-law, probably John Carill, serjeant-at-law, who died 1523, although his son of the same names was made serjeant-at-law in 1539; no. 143. John Hales, a baron of the exchequer, who died in 1539.

A number of the coats are ascribed to families who are known to have been of standing in the city of London, and some are ascribed to mayors, the word 'mayor' being added after the name. Of great city families which gave mayors to the city there are: no. 13. Amcotts (1548); no. 31. Baldry, which coat occurs also at no. 304 (1523); no. 121. Herriot (1481); no. 126. Exmew (1517); no. 127. Haddon (1506); no. 210. Shaa (1482); no. 307. Judd (1551); no. 365. Merfin (1518); no. 387. Phelip (1463); no. 397. Rest (1516); no. 398. Wyngar (1504); no. 400. Seymour (1526); the date in brackets after each name indicating the year when a

member of that family was mayor. The word mayor is added on the roll to the following names: no. 311. Jenyns (Sir Stephen, mayor 1508); no. 317. James (Sir Bartholomew, mayor 1479); no. 322. Monoux (George, mayor 1514); no. 323. Kneysworth (Thomas, mayor 1505); no. 324. Kebill (Henry, mayor 1510); no. 325. Milbourn (Sir John, mayor 1521); no. 326. Munday (John, mayor 1522); no. 402. Spencer (James, mayor 1527).

In the case of one coat, no. 180, ascribed correctly in the roll to Pett (for it was granted in 1519 to John Pett of London, gent.), a later hand has erroneously added 'mayor of London', for no mayor of that name occurs in any list. The only city company whose arms appear is the Fishmongers, no. 291, of which company the Amcotts, no. 13, were free.

In the roll the coats are at times ascribed to families in particular counties. In the grants that have been traced, the county in which the grantee dwelt is usually stated, and from other sources it is possible at times to identify a coat with a particular county. For a list see *infra*, p. 110.

It is now convenient to tabulate the coats, the actual grants of which have been traced.

The grants by Sir Christopher Barker are the most numerous, being thirty-eight in all. He died about 1549, and the coats granted by him are: nos. 2, 4, 13, 42, 44, 46, 47, 65, 71, 74, 82, 90, 99, 101, 107, 108, 136, 138, 140, 159, 184, 221, 234, 268, 269, 270, 288, 293, 298, 306, 329, 335, 336, 344, 366, 370, 403, 404.

The next are twenty-six by Wriothesley and Benolt; as both died in 1534 the grants must have been before that date. They are: nos. 54, 55, 58, 72, 75, 79, 104, 143, 149, 152, 153, 167, 169, 180, 196, 201, 229, 233, 237, 286, 291, 322, 330, 339, 350, 401.

There are five granted by Wriothesley alone: nos. 150, 157, 189, 238, and 412; and three by him and Machado: nos. 8, 219, 416. Two are granted by Wriothesley and Tonge, viz. nos. 102, 113, and one by them with Benolt, viz. no. 242. One grant only has been traced to Hawley (norroy, 1534), viz. no. 371, and one to Benolt alone, viz. no. 85. One by John Writhe (no. 32) has been already alluded to, and another is no. 208. Thomas Holme (clarenceux, died 1493) makes one grant, no. 144.

In the case of no. 5, there is at Oxford a copy of a patent dated 1428, by which the arms are released by Humphrey Smethwick to John Atwood of Worcester, and the grant of no. 354 by Henry VII to Nerbonne is entered on the Patent Roll as mentioned above.

In the attempt to trace the grants of the various coats on the roll much use has been made of manuscript authorities in the British Museum, the main sources from which information has been acquired being the Arundel MS. no. 26; Harleian MSS. nos. 1049, 1079, 1116, 1172, 1359, 1394, 1422, 1430, 1433, 1507, 1541,

4900, 5846, 5887, 6140, 6179, 7025; Stowe MSS. nos. 676, 692, 706, and Add. MSS. nos. 5848, 5506, 14295, 26702.

After the roll was finished and the names inserted above each shield it appears to have come into the possession of some person or persons who made various additions to the description above the shields and, as mentioned above, tampered with some of them. In the detailed description of each shield given below, these additions are noticed. The additions, however, must be received with caution, as their accuracy is not above question. It has been observed above that a mayor of London has been introduced who does not seem to have ever existed. Some of the indications of county are also doubtful, and too much dependence must not be placed on them. There is one entry on the roll which raises a difficulty as to the meaning of a word of description. This is no. 115, ascribed to John Symonds of Exeter 'gartier, H. VII'. John Symonds was collector of customs at Exeter 9-10 H. VII, and one of the four bailiffs of Exeter in 1483 and mayor in 1523. The word 'gartier' may then be for 'quartier' or 'gardiator'. The former is in the *New English Dictionary* as equivalent to quarteer or quartermaster. This information is due to the kindness of Mr. R. P. Chope.

In conclusion, it is possible to point out certain matters which enable the date of the roll to be approximately determined. The general style of the work, the draftsmanship and the hand-writing suggest a date in the reign of Henry VIII. None of the grants traced makes it necessary to give a later date than 1534: none of the bishops nor the religious and legal personages supply a later date than 1539. No coat is ascribed on the roll to any mayor of later date than 1527. The great suppression of the monasteries was in 1538, so that it is not very probable that on a roll some years after that date many abbots would be found. The evidence thus accumulated seems to point to a date of about 1540, at which it is probable that the roll was emblazoned, and it is further probable that the maker intended it for one of the family of Amcotts free of the Fishmongers' Company of London.

## BLAZON OF SHIELDS.

**1** and **2.** These two rows have been cut off.

**3.** 1. Quarterly per fess indented arg. and gu. on a bend az. 3 crosses patty fitchy or, in chief an annulet counterchanged. Acton. H. VII.

2. Gu. on a chevron engrailed or, between 3 plates each charged with a dog courant sa., as many crescents az. Aleyn de Raley. H. VIII.

Grant by Barker to William Alyn, of Rayley, Essex, gent., 'de gueulz a ung cheveron dor engrelee entre iii plates sur chacun plate ung leverier courant de sable chacun aiant entour son coll ung colier dor sur le chevron troys croissantz dasur' (Stowe, 692, fol. 9). Will of William Alen, of Rayley, Essex, P.C.C., 32 *Holder*, 1517.

3. Or 3 pellets each charged with a dog courant or, on a chief gu. a lion passant guardant between 2 anchors arg. Aleyn de Thaxsted. H. VIII.

Add., 26702, fol. 41, assigns to Sir John Allen, of Thaxted, Essex, H. VIII, but tricks the lion ermine and not guardant. Will of Sir John Alen, knt., of St. Thomas of Acon, London; Essex, Lincoln, York, &c., P.C.C., 1 *Alen*, 1545.

4. Az. a chevron ermine between 3 branches of oak and a bordure engrailed or. Amydas. H. VIII.

Grant by Barker to Robert Amydas, of London, gent., 'dasur a ung cheveron d'hermyne enter trois branches de cheyne en chacun branche trois glans quater fuielles les liens a une bordeure engreslee dor' (Stowe, 692, fol. 9). Will of Robt. Amadas, of St. Mary Woolnoth, London, and Dagenham, &c., Essex, P.C.C., 7 *Hogen*, 1533. See also Drake's *Hundred of Blackheath*, xxii, xxiii for pedigree.

5. Arg. a wolf salient sa., armed and langued gu., collared arg., on the collar 3 torteaux, a bordure engrailed sa. bezanty. Atwode. H. VI.

4. 6. Le Melle. Coat repainted and now indecipherable.

7. Playstowe. Coat repainted and now indecipherable.

8. Barry wavy of 6 arg. and gu. 3 shrimps or. Atwater ep'us. H. VIII.

This is the family coat and not that of the bishop. On 13 April 1509, Thomas Wriothesley, garter, and Roger Machado, 'otherwise called Richmont,' clarenceux, granted to William Atwater, D.D., then dean of the king's chapel, and afterwards bishop of Lincoln, 1514-21, a variation of the original coat, viz.: 'ermyn and gules barry undee of 6 peces a cheveron betweene 3 shrymps gold, on the cheveron a rose betweene 2 lillies gules, stalked vert' (Bodleian, Oxford, Ashmole MS. 858, fol. 17).

9. Arg. on a saltire az. between 4 griffin's heads erased gu. a leopard's face enclosed by 4 lozenges or. Alward. H. VIII.

This coat is much rubbed.

10. Quarterly. I and IV. Arg. a chevron between 3 crosses moline sa. II and III. Arg. a bend wavy between 6 pierced mullets sa. Playstowe.

This coat has been repainted and appears to be a later addition. The arms of Playstow are gu. a lion rampant arg. between 2 cotises or.

5. 11. Sa. a chevron between 3 castles or, from which issue demi-lions rampant arg., armed and langued gu. Seycyll.

12. Arg. on a cross engrailed sa. 5 estoiles or. Frodsam.

13. Quarterly of eight. I. Arg. a castle between 3 covered cups az. II. Arg. a fess between 3 escallops gu. III. Barry a lion rampant crowned. IV. Gu. goutty, a castle. V. On a bend doubly cotised 3 escallops. VI. Arg. on a bend cotised 3 griffin's heads erased. VII. Gu. 3 bars ermine. VIII. Arg. 3 wreaths in bend gu. between 2 cotises. Over all in fess point a crescent for difference. Above is the motto LOYAVL: EN: SERVICE: and the name Amcott'.

This coat, tricked in ink only on a shield larger than any of the others, is now much rubbed and almost obliterated in places. Six of the quarters together with a crest were confirmed to Alexander Amcotts, of Astrop (Aisthorpe), Lincs., by Sir Christopher Barker, garter, on

5 October 1549, 3 Edw. VI. The quarters so confirmed are: I. Arg. a castle between 3 covered cups az., for Amcotts. III. Arg. 4 bars gu., over all a lion rampant sa., crowned or, for Wasthouse. IV. Gu. goutty arg., a castle or, for Hamborough. V. Gu. on a bend arg., doubly cotised or, 3 escallops sa., for Dawtry. VI. Arg. on a bend cotised sa., 3 griffin's heads erased arg., beaked or (gu. in Harl., 1422, fol. 116), for Solaye. VIII. Arg. 3 wreaths in bend gu. between 2 cotises sa., for Saxton (Harl., 1359, fol. 14, and *Genealogist*, v, 187). A brass in St. Mary, Stratford-le-Bow, to Grace, daughter of John Wilford, and wife of John Amcotts, of London, fishmonger, nephew of Alexander Amcotts, of Astrop, gives the eight quarters as in the roll with a mullet in fess point for difference and a label of 3. The quarters not in Barker's confirmation are: II. Arg. a fess between 3 escallops gu., for Kenthorpe, and VII. Gu. 3 bars ermine, for Astrop. Grace Amcotts died 13 July 1551. Harl., 1049 (first part), fol. 74, tricks the eight quarters and attributes to Sir Henry Amcotts, fishmonger, mayor in 1548, and (second part), fol. 62, says he was son of William Amcotts, of Astrop, and fol. 60$^{b}$ when sheriff in 1542 only bore the first quarter.

14. Az. a bend cotised arg. between 6 martlets or. Tonge (of Kent, added).

In an undated confirmation by Segar, printed in *Arch. Cant.*, vi, 255, the bend and cotises are given as or. They are also or on an enamelled plate in the Victoria and Albert Museum, dated 1554, with the arms of Thomas Tonge, clarenceux, and his wife Susan White. Noble's *History of the College of Arms*, p. 116, gives the bend arg. cotised or.

15. Ermine on a chief sa., two unicorn's heads couped arg. Frankes.

**6**. 16. Az. on a fess gu. three lion's faces or. Fryston.

More generally the fess is or and the faces gu.

17. Arg. a cross moline sa. charged with a crescent arg. for difference. Copley.

18. Sa. fretty arg. Harington.

19. Arg. on a bend between 6 martlets gu. 3 bezants. Wortley.

20. Vert a fess between 3 covered cups or. Hawdenby.

**7**. 21. Sa. 3 garbs or, a bordure arg. Bryket. H. VI.

22. Arg. 3 piles wavy vert, a bordure az. bezanty. Bryan. H. VI.

23. Arg. fretty gu. a cross arg., a bordure sa. charged with 8 cinquefoils arg. Bryce. E. IIII.

24. Gu. a chevron chequy arg. and az. between 3 garbs or. Baron. E. IIII.

25. Az. a chevron between 3 escallops or, a bordure engrailed gu. Browne. E. IIII.

**8**. 26. Gu. a chevron or between 3 talbots statant arg., on a chief embattled arg. 3 martlets az. Burgoyn. H. VIII.

27. Gu. a chevron arg., fretty az., between 3 garbs or. Baron. E. IIII.

28. Sa. a chevron or between 3 crescents ermine. Babthorpp. H. VI.

29. As 27. Baron. H. VI.

30. Sa. 2 swords in saltire arg., points upwards, hilts and pommels or, between 4 fleurs-de-lys or. Barrogh. E. IIII.

**9**. 31. Sa. on a chevron engrailed or, between 3 demi-griffins segreant ermine, 3 martlets gu. Baldry. H. VIII.

Sir Thomas Baldry, mercer, mayor in 1523, in which year he was knighted, son of Richard Baldry, of Stowmarket, Suffolk. Died in 1534, will P.C.C., 17 *Hogen*. Married Elizabeth, daughter of William Forde, of Hadley, Suffolk. See nos. 304 and 371.

32. Sa. 2 swords in saltire arg., points upwards, between 4 fleurs-de-lys or, a bordure gobony arg. and purpure. Barro. H. VII.

Grant by Wrythe to Thomas Barowe, clerk, and his brother Richard Barowe, of Winthorp, merchant of the staple, dated 22 October, 11 H. VII (1495). Printed in *Proceedings*, xvi, 347.

33. As 22, but piles not waved. Bryan. H. VIII.
34. Sa. a fess arg. between 3 right hands couped or. Bate. H. VI.
35. Per pale wavy arg. and vert 3 boar's heads couped sa. on the dexter half and arg. on the sinister. Barneby. H. VI.

(End of first skin)

**10.** 36. Sa. 3 garbs or, on a chief arg. a talbot's head erased between 2 bricks gu. Brykes. H. VIII.
37. Gu. on a chevron between 3 eagle's heads erased arg. 3 lozenges az., on a chief embattled or 3 birch trees ppr. Byrche. H. VIII.
38. Az. on a chevron between 3 bells arg. an eagle displayed between 2 lions rampant gu., a bordure ermine. Belhows. H. VII.
39. Sa. on a chevron arg., between 3 griffin's heads erased or, a boar's head couped between 2 pheons gu. Bekwith.
40. Arg. a chevron between 3 trefoils slipped sa., on a chief gu. a goat couchant arg. Boughton.

**11.** 41. Sa. on a chevron between 3 wings arg. 3 torteaux each charged with a pheon or. Babeham. H. VIII.
42. Sa. on a fess between 3 saltires arg. an escallop between 2 mullets az. Bedell. H. VIII.

Grant by Barker to William Bedell, of Writtle, Essex, esq., 'de sable a une fece entre iii saultiers dargent sur la fece une coquille entre deux moletts dassur' (Stowe, 692, fol. 22).

43. Arg. on a cross engrailed quarterly gu. and az., between in the first and fourth quarters a spear-head and in the second and third a stag's head cabossed sa., 5 bezants. Broke. H. VIII.
44. Arg. a saltire gu. between 4 burdock leaves vert, on a chief az. a lion's head erased between 2 battle-axes or. Borell. H. VII.

Grant by Barker to John Borell, of Wormley, Herts., gent., 'dargent a ung saultier de goulz entre quatrefuelles de gleton vert a ung chief dasur une teste de lion rassee entre deux haches darmys dor' (Stowe, 692, fol. 22).

45. Arg. on a fess chequy az. and purpure, between 6 crosslets sa., 3 annulets arg. Butteler. H. VII.

**12.** 46. Per pale indented arg. and or a chevron between 3 escallops gu. Brown. H. VII.

Grant by Barker to William Browne. 'silver and gold parte p palle endented unpon all a cheveron betwene iii scaloppis goulz, & his wyff, goulz a cheveron betwene iii luces ayrantz silver' (Stowe, 692, fol. 21$^{b}$).

47. Gu. a fess vair between in chief a bezant charged with an anchor sa. enclosed by 2 estoiles or, and in base 3 martlets arg. Bayley. H. VIII.

Stowe, 692, fol. 22. Barker's grants. William Bayly, London, at the Assumption of the B.V.M., 1524, 'goulz une fece verre au chef une besant entre deux estoilles de six pointz sur le besant une ancre en palle de sable au dessoubz de la fece trois marlettz dargent'.

48. Arg. on a fess counter-embattled sa. 3 escallops arg., on a quarter quarterly gu. and az. a leopard's face or. Browne. H. VIII.

49. Per pale gu. and sa. on a fess or, between 3 griffin's heads erased or, goutty az., 3 lozenges ermines. Broders. H. VII.

50. Arg. 3 torteaux each charged with a fleur-de-lys or, on a chief az. a hunting horn or between 2 pheons arg. Barro. H. VII.

**13**. 51. Per pale sa. and purpure a chevron between 3 eagles displayed arg., on a chief or a rose gu., seeded or, between 2 lozenges gu. Byrde. Relig'. H. VII.

Tricked in Add., 26702, fol. 45, and ascribed to Byrde of Bathe, but it is per pale sa. and gu., and the tinctures of the chief and its charges are not given. William Bird was prior of Bath from 1499 to 1525. According to the *History and Antiquities of the Cathedral Church of Salisbury and the Abbey Church of Bath*, 1719, p. 268, 'in some old lodgings belonging to the monks, on the south side of the prior's house, situate on the south side of this abbey church, are several coats of arms remaining, viz. a chevron between three spread eagles, on a chief a rose between two lozenges, over it a mitre and a crosier (Prior Bird)'.

52. Or a griffin segreant per fess az. and sa., the former fretty arg., within a bordure gu. charged with 5 crosses formy or and 5 acorns ppr. alternately. Boys. H. VIII.

53. Arg. a chevron engrailed sa. between 3 torteaux, on a chief az. a lion passant between 2 crosses patty fitchy or. Benolte. H. VIII.

54. Arg. a chevron gu. between 3 mullets sa., on a chief sa. a lion's head erased between 2 lozenges or. Bollys. H. VII.

Grant in French by Wriothesley and Benolt, 28 February 1528–9, to Wm. Bolle, alias Bolles, of Worthin, Suffolk, gent., 'dargent a ung cheveron de gueules entre trois moletes (sa. in trick) a ung chief de sable sur le chief la teste dung lion rasee entre deux losenges dor' (Bodleian, Oxford, Ashmole MS. 834, fol. 10$^{b}$).

55. Per pale gu. and sa. on a chevron engrailed between 3 greyhound's heads erased arg., collars gu., 3 hurts. Belson. H. VII.

Confirmed by Wriothesley and Benolt to Thomas Belson, of Aston, Oxon., gent., at London, 20 November 1517, 9 H. VIII; the dogs collared purpure and belled or (Harl., 1359, fol. 29).

**14**. 56. Sa. a chevron between 3 goats statant arg., each charged with 2 pallets purpure, on a chief or a demi-woodhouse between 2 cinquefoils gu. Batty. H. VIII.

57. Sa. on a chevron arg., between 3 griffin's heads erased or, 3 Moor's heads ppr., filleted arg., on a chief arg. a cross potent between 2 fleurs-de-lys gu. Bele ep̃s. H. VIII.

Add., 26702, fol. 54, tricks the arms, but with the fillets and the chief or, and ascribes to 'Bele, bishopp of (blank)', H. VIII. John Bell was bishop of Worcester 1539–43.

58. Gu. on a fess between 3 goat's heads erased arg. 3 fleurs-de-lys az. Boughton. H. VII.

Grant by Wriothesley and Benolt, dated at London, 11 February 1518, 10 H. VIII, to Edward Boughton, of Woolwich, Kent, gent., 'gueules a une fece entre trois testes de chevre rasees dargent, les cornes, les barbes et les rasures dor, sur la fece trois fleurs de liz dazure' (Add., 14295, fol. 83).

59. Or 2 bars dancetty sa., on a chief az. 3 annulets or. Beke. H. VII.

60. Quarterly gu. and vert a buck statant between 3 pheons arg., a bordure engrailed or. Bucke. H. VIII.

**15.** 61. Arg. on a fess gu. between 3 pellets, 3 bustards or, a bordure engrailed az. Bustard. H. VII. (of Devonshr̃, added).

62. Az. four bends and in sinister chief a griffin's head erased or. Bilsdon. H. VI.

63. Arg. a chevron between 3 cranes gu. Browne. E. IIII.

64. Arg. a chevron sa., fretty or, between 3 roses quarterly az. and gu., seeded or, stalked vert. Browne. H. VII.

65. Gyronny of 8 gu. and sa., 3 demi-mandrakes male arg., hair, leaves and apples or, a bordure or charged with 8 crosslets fitchy az. Bodyham. H. VIII.

Grant by Christopher Barker, garter, 'Gueles and sa. geronde of eight peeces 3 demy mandrages males argent, the heire, leaves and aples or. A bordure de (blank) remplied with cross crosslets formes fistches asure. His crest a demy mandragon femelle ar., the here or, leaves vt. and aples p., having on her brest a cros croslet fitche s., being on a wreath or and blue' (Harl., 5846, fol. 14$^{b}$). Trick of arms in Add., 26702, fol. 65$^{b}$, says confirmed H. 8.

**16.** 66. Arg. on a fess engrailed between 3 escutcheons gu. 3 pierced mullets or. Bacon. H. V.

67. Ermine on a bend sa. 2 hands ppr. with arms vested arg. issuing out of clouds vair, rending a horse-shoe or. Borlas'. H. VIII.

Cf. *Genealogist*, N. S. ii, front. and p. 8, for an account of the Borlase family.

68. Or on a fess engrailed gu., between 3 cock pheasants ppr., 3 crosses patty arg. each charged with 5 pellets. Bryseley. H. VIII.

69. Per bend or and arg. a lion rampant, tail forked, az., armed gu., on a chief gu. a cross formy fitchy between 2 mullets arg. Basquer, mathew.

70. Gu. on a fess between 3 crosses patty fitchy or, a crane az., beaked and membered gu., between 2 annulets az. Crane. H. VIII.

**17.** 71. Arg. a lion passant paly of six sa. and or, armed gu., between 3 dolphins gu. each charged with 3 bezants; a double tressure flory counterflory purpure. Caunton. H. VIII.

Grant by Barker to John Caunton, of Warwickshire, 'Dargent ung lion passant sable entre trois dolphins gules, sur le lion deulx pales dor, sur chūn dolphins trois beisants en fesse et ung double trass' floure countreflore de pourpre' (Harl., 5846, fol. 26, and Stowe, 692, fol. 29).

72. Arg. a fess nebuly between 3 mascles gu., on a chief sa. a helmet arg. between 2 eagle's heads erased or. Compton.

In the Bodleian (Rawl. B. 102, fol. 110$^{b}$) is a copy in the handwriting of John Guillim, rougecroix, of a grant by Wriothesley and Benolt, 14 October 1516, 8 H. VIII, to John Compton, of

London, gent. It is in French and grants these arms 'd'argent a une onde en fesse entre trois mascles de geulz a un chiefe de sable sur le chiefe une heaulme du champ entre deux testes de aigleez raseez d'or' with crest.

73. Arg. on a bend sa. a rose between 2 griffin's heads erased or, a bordure engrailed az. Caryll s'viens ad legem. H. VIII.

Either John Carill, serjeant-at-law, who died in 1523 (will, P.C.C., 10 *Bodfelde*), or his son John, created a serjeant in 1539.

74. Arg. 3 wolf's heads sa., langued gu., on a chief gu. 3 pierced cinquefoils or. Cremor. H. VII.

Add., 26702, fol. 56$^{b}$, gives a trick of the arms granted to 'Cremoeer' by Sir Christopher Barker, garter, H. VII, with a note that the heads are 'woulefs' heads. In this trick the tongues are not red, nor are the cinquefoils pierced.

75. Az. a pegasus salient or charged on the shoulder with a rose gu., seeded arg., a bordure gobony arg. and vert. Cavalier. H. VII.

Harl., 1359, fol. 41, tricks the arms as above, and says a gift of the arms and crest to Anthony Cavaler, of London, gent., and to his posterity, by Sir Thomas Wriothesley, garter, and Thomas Benolt, clarenceux, dated 20 June 1544, 36 H. VIII. Harl., 1394, fol. 320, tricks the same arms, but says of the gift to his posterity 'with theyre due difference', and dates the grant 20 June 1514, 6 H. VIII, 'le vingtiesme jour de Juin l'an nře S$^{r}$ Ihu Christ mil cinqcens et quatorze et l'an du reigne du Roy Henry l'huytiesme nostre tresredoubte et sovereigne seigneur sixiesme.' Harl., 6140, fol. 67$^{b}$, gives a unicorn winged salient and dates as in Harl., 1359. Add., 26702, fol. 59, also tricks the arms, but with the roses not seeded, and dates 1544, calling him Anthony Caveiller, of London, granted by Wriothesley and Benolt. The earlier date of 1514 is more probably correct, as both Benolt and Wriothesley died 1534.

**18.** 76. Or a chevron chequy az. and gu. between 3 cinquefoils az. Coke. H. VI.

77. Arg. a bend sa. between 3 dragon's heads erased gu., the upper part of the bend charged with a popinjay arg., beak and legs or. Curson. H. VII.

Add., 26702, fol. 63, gives a trick of the arms, but with the beak and legs gules.

78. Arg. two glazier's nippers in saltire sa., between 4 pears or, a bordure engrailed sa. Caylwey. H. VI.

79. Arg. on a bend gu. between 3 pellets 3 swans or, on a canton az. 2 fleurs-de-lys in chief or and a demi-ram salient arg. in base, with over all a bend arg. Clarke. H. VIII.

The canton bears a composition from the armorial insignia of Louis of Orleans, duke of Longueville (see Woodward's *Heraldry*, ii, 149), who was captured by Sir John Clerk, of North Weston, Oxfordshire, in the skirmish at Borny, near Terouenne, commonly known as the battle of the spurs, in 1513, and was granted as an augmentation by Wriothesley and Benolt in the same year.

80. Arg. a chevron engrailed between 3 moorcocks sa., legs and beaks gu. More. E. IIII.

**19.** 81. Ermine a chevron per pale or and sa. Cosyn. H. VI.

See also no. 112.

82. Gyronny of 8 gu. and sa., on a bend engrailed or, between 2 cob swans ppr., each holding in its beak a crosslet fitchy arg., 3 hurts. Cobelegh. H. VIII. (of Devonsh^r. added).

Grant by Barker to John Cobbelegh, of Bryghtley, Devonshire, 'geules and sable gerunde of viii pecs a bende engrailed gold betwene ii swannes holding in their beckys ii cros crosselletts silver upon the bende iii hurtes' (Stowe, 692, fol. 28^b).

83. Per pale indented gu. and arg. a bull passant counter-changed, a bordure sa. bezanty. Colee. H. VII.

84. Arg. 2 bends nebuly sa., on a chief gu. 3 leopard's faces or, langued gu. a bordure gobony or and az. Clement. H. VII.

85. Bendy of 6 arg. and az. a sword in fess, hilt to sinister, between 2 lions counter-passant guardant or, spotted sa., langued gu. Caronges. H. VII.

Add., 26702, fol. 68^b, tricks the coat and says granted by Benolt, H. VIII.

**20**. 86. Sa. on a chevron or, between 3 plates, 3 pierced cinquefoils sa., on a chief arg. 3 columbines slipped az. Cooke. H. VIII.

87. Gu. between 3 crosslets fitchy a lion rampant or, armed and langued az. Capell. H. VII.

88. Arg. semy of crosses gu., on a chevron az. a lion passant between 2 fleurs-de-lys or. Cavelcanti. H. VIII.

In the Bodleian, Oxford, Ashmole MS. 834, fol. 74, is a copy of letters patent in Latin, dated 5 February 1520–1, granting to John Cavalcanti, citizen of Florence, 'servus et familiaris noster,' as he uses the ancient arms of his family 'argenteo campo integris et dimidiatis rubeisque crucibus in acutum ordine insertis', an augmentation, 'ut dicti Iohannis arma ceruleo vallo in inflexum per nos apposito distinguamur cuius utrumque latis aureis duobus liliis ornatur in medio autem spacio aureus leo incedens ac hianti ore torve inspiciens inter haec duo lilia concluditur,' also a pegasus as a crest. A memorandum at the end notes 'scribantur ista insignia lingua gallica et tanto evidentius constare poterit apud caduceatores et veteranos'. There is also a copy of the grant in Latin in the library of Queen's College, Oxford, MS. 38, fol. 31. The State Papers for this period are full of references to John Cavalcanti, who was a well-known Florentine merchant and a gentleman usher to the king.

89. Az. a lion passant guardant paly of 6 or and arg., langued gu., between 3 gauntlets arg., a bordure engrailed or. Conway. H. VIII.

90. Az. fretty arg., on a fess or a greyhound courant sa., collar arg., a bordure or, pelletty. Cave. H. VIII.

Grant by Barker, 'La Cave de Cave port asur frette dargent dont vient la Cave de Stanford qilz portent asur frette dargent a une fece et une bordure dor, sur la fece ung levrier passant des sable, son collier dargent la bordeure pellette' (Stowe, 692, fol. 31).

(End of second skin)

**21**. 91. Bendy of 6 gu. and or, on a fess vert 3 plates, a bordure gu. Copynger. H. VIII.

92. Per chevron or and gu. 3 hearts counter-changed. Caulx. H. VI.

93. Arg. a chevron sa. between 3 coots ppr. Cote. E. IIII.

94. Per pale arg. and gu. a bend counter-changed. Chausers.

95. Arg. on a chevron between 3 leopard's faces sa., 3 annulets arg. Calowe. E. IIII.

**22**. 96. Gu. a lion rampant or, armed az., between 2 flaunches and a gusset ermine. Cely. H. VI.

97. Per pale erm. and sa. a chevron chequy arg. and sa. between 3 lion's heads erased or, langued gu. Celly. E. IIII.

98. Arg. on a bend az., between 2 cotises gu. and 6 battle-axes sa., 3 swans or. Dawes. H. VII.

99. Erm. a chevron wavy az. between 3 Moor's heads couped ppr., habited sa. fretty or, on a chief chequy arg. and gu. a crescent or between 2 pellets, each pellet charged with a dog courant or. Dodmor. H. VIII.

Grant by Barker to Rauff Dodmore, of London, gent., 'dermyne a ung cheveron owndee dasur enter trois testes de mores blaus le collette de lours pourpointz de sable frettes dor et ung chieff dargent et de gueulz eschequete sur le chief une croissant dor entre deux pelletes sur chacun pellet ung chien de chasse courrant du croissant' (Stowe, 692, fol. 35[b]).

100. Per pale arg. and or a fess nebuly between 3 lion's heads erased gu., langued az. Dauncy. H. VII.

**23**. 101. Gu. on a fess or, between 3 hares courant arg., a crescent az. between 2 martlets sa. Crystemas.

Add., 26702, fol. 44, tricks this with crest as Chrystmas of Essex, per Xpofer Barker, garter, H. VIII. Harl., 6179, fol. 45, also tricks the shield, but makes the martlets az.

102. Az. on a fess dancetty between 8 garbs or, banded gu., 3 doves az., beaked and legged purpure. Dowman, doctor. H. VIII.

Grant in Latin by Wriothesley and Tonge, dated London, 25 July 1526, to John Dowman, of Pocklington, Yorks., doctor of both laws, archdeacon of Suffolk, canon residentiary of St. Paul's, and auditor to Cardinal Wolsey, 'gallice, dasur a une fece daunce entre huict gerbis dor les loiens de gueulles sur la fece trois colombes du champe becquees membres de pourpre' (Harl., 4900, fol. 20). Will dated 8 November, proved 6 December 1526 (P.C.C., 14 *Porch*), printed in *Testamenta Vetusta*, p. 623.

103. As 79 without the augmentation. Clerke. H. VIII.

104. Or a cross ermine between 4 popinjays reguardant vert, beaks and legs gu., on a chief az., between 2 roses or, the serpent of Milan arg., crowned or, swallowing a demi-idol or. Chamber. H. VIII. confirm'.

Confirmation in Latin by Wriothesley and Benolt, dated London, 26 August 1528, to Geoffrey Chamber, on his petition to register the arms which had been granted to him in 1518 by Caesar de Riario, patriarch of Alexandria and bishop of Malacita, viz. 'dor a ung croix arminie entre quatre papagaies derrier regardans de verte becquees et membres de gueules a ung chief dasur sur le chief le serpent de Millan dargent corone et engueulant ung demy ydolle entre deux roses du champ' (Harl., 4900, fol. 20[b]). The petition proves that in 1528 he was of Stanmore, Middlesex.

105. Arg. 15 hearts, 5, 4, 3, 2, 1, inverted gu., a bordure az. Dermensa, Hispan'. H. VII.

**24**. 106. Arg. 3 pierced cinquefoils per pale az. and gu. Cheoke. H. VI.

107. Arg. on a bend az., between 2 greyhounds salient sa., three birds or. Crugge. H. VIII.

Add., 26702, fol. 64$^b$, tricks this coat and says 'p̃ Xpofer Barker, garter, H. VIII.'

108. Arg. 3 coffers sa., banded or, strapped vert with tassels or. Coope. H. VII.

Add., 26702, fol. 65, tricks this coat and says 'p̃ Xpofer Barker, garter, H. VII.'

109. Per pale indented gu. and az. a lion rampant or, armed and langued az. Drayton. E. IIII.

110. Az. 10 billets, 4, 3, 2, 1, or, on a chief or a demi-lion issuant sa., armed and langued gu., charged on the shoulder with a mullet arg. for difference. Dormore.

**25.** 111. Per chevron gu. and az., in chief 2 lions rampant guardant combatant and in base a fleur-de-lys or. Clarence.

112. Quarterly. I and IV. Az. a lion rampant, tail forked, or, goutty de sang, crowned, armed, and langued arg. II and III as 81. Cosyn. dorssetsh.

113. Arg. a chevron sa., fretty or, between 3 demi-lions rampant erased az., on a chief gu. 3 wreaths arg., flowers or, seeded az. Hall de Salford' lancashire.

Harl., 1359, fol. 41. tricks this coat and adds gift of arms and crest, dated London, 4 November 1533, 28 H. VIII, by Wriothesley and Tonge, to John Hall, the son of Amery Hall, of Salford, Lancs., gent. Harl., 6140, fol. 67$^b$, makes the flowers arg. and the wreaths or.

114. Per pale arg. and sa. a chevron between 3 greyhounds courant counter-changed, on a chief gu. 3 leopard's faces or. Goche. (H. VIII added.)

115. Arg. a chevron purpure between three halberts az., handles sa., tipped gu. John Symond de excestre, gartier. H. VII.

**26.** 116. Gu. a fess arg. between 3 leopard's faces or. Fanner. H. VI.

117. Arg. on a fess between 6 crosslets sa. 3 escallops or. Hogen (lond' added). H. VII.

118. Sa. a chevron embattled or between 3 roses arg. Curneche. (H. VIII added.)

119. Sa. a saltire between 4 martlets arg., a bordure ermine. Eustace. H. VI.

120. Gu. a boar salient arg., collar and chain or. Eyre. H. VI.

**27.** 121. Per pale sa. and ermine 3 crescents counter-changed. Harryot. E. IIII.

122. Arg. a fess between 3 martlets sa. Edwardis. E. IIII.

123. Az. a chevron ermine, fimbriated and engrailed or, between 3 eagles displayed arg. Essex. H. VI.

124. Sa. a chevron ermine between 3 wild cats passant guardant arg., spotted sa. Hill. E. IIII.

125. Per chevron az. and gu., in chief two stags or regarding a well arg. in base. Hart. E. IIII.

**28**. 126. Arg. a chevron chequy purpure and arg. between 3 escallops sa., a bordure gu. charged with 4 leopard's faces or and 4 plates alternating. Exmew. H. VIII.

127. Or a man's leg couped at the thigh az. Haddon.

128. Arg. on a plain bend between 2 cotises dancetty gu. 3 lion's heads erased arg., a bordure az., bezanty. Graye. H. VII.

129. Arg. on a bend engrailed gu. a crescent between 2 leopard's faces arg., on a chief az. 3 catherine wheels or. Hardy. H. VIII.

130. Arg. a chevron chequy az. and purpure between 3 martlets gu. Hampton. E. IIII.

**29**. 131. Sa. 3 gauntlets arg., a bordure or. Gunter. H. VI.

132. Arg. on a chevron gu., between 3 lions passant sa. bezanty, armed and langued gu., 3 lozenges arg. Englishe. H. VII.

133. Per pale az. and vert a chevron between 3 stag's heads couped or, on a chief arg. 2 leopard's faces az. enclosing a torteau charged with a lion's head erased arg. Higdon. H. VIII.

134. Or a chevron between 3 lozenges az., on a chief gu. a saltire engrailed between 2 hawks or. Hyde.

135. Per chief embattled az. and purpure, on a chevron or, between 3 griffin's heads erased arg., 3 escallops sa., in chief a cross potent or. Gardyner. H. VII.

**30**. 136. Az. a chevron between 3 swan's heads erased arg., gorged gu. Hubard. H. VIII.

Grant by Barker to Thomas Huberd of Calais, 'dasur ung cheveron entre trois testes de cignes rasees dargent entour le coll de chascun ung crownal en palle de quater pieces dor et de goulz' (Stowe, 692, fol. 53$^{b}$).

137. Sa. on a bend, between a hound salient in chief and a dolphin in base arg., 3 torteaux. Hollys. H. VIII.

138. Sa. on a fess arg., between 3 wild cats passant guardant or, spotted sa., a cross sarcelly between 2 cocks gu. Hyll. H. VIII.

Grant by Barker to Richard Hill, of Dorney, Bucks., gent., 'de sable a une fece dargent entre trois chatz de montaigne passantz dor, sur le fece une croix sarcelle entre deux coquilles de goulz' (Stowe, 692, fol. 53$^{b}$). Harl., 5846, fol. 46, also tricks the coat with cocks as in the roll. Will of Richard Hill, esq., of St. Benet, Paul's Wharf, London, and Dorney, Bucks., P.C.C., 8 *Alenger*, 1540.

139. Per pale gu. and az. on a chevron between 3 herons arg. 3 pierced cinquefoils sa. Heron. H. VII.

140. Per pale gu. and az. on a fess nebuly arg., between 3 crosses formy or, 3 crescents sa. Godsalve. H. VIII.

Grant by Barker to Thomas Godsalve, of the city of Norwich, gent., 'de goulz et dassur parti per pale a une fece undee dargent entre trois croisselletts formees dor, sur la fece trois croisantz de sable' (Stowe, 692, fol. 47).

**31.** 141. Arg. a cross moline sa. between 4 flowers (? pinks) gu., stalked vert, on a chief az. a mitre between two nimbed doves or. Hawkeborn, abbas v.

Tricked as above in Add., 5848, fol. 88, and ascribed to the lord John Haukborne, abbot of Cycester. Add., 26702, fol. 50, makes the flowers all vert, and ascribes to Hawkeborne, Dr. of (blank), H. VII. John Haukeborne, D.D., was abbot of Cirencester, 1504–22.

142. Arg. a fret sa. charged with a cinquefoil arg., a chief az. quarterly, in the first and fourth 3 bars or, and in the second and third 3 lozenges arg. Haryngton. doctor. H. VII.

William Harington, LL.D., rector of St. Anne, Aldersgate, 1505–10, prebendary of Islington, 1497–1523. Will, P.C.C., 16 *Bodfelde*, dated 12 October 1523, and proved January 1523-4. The chief, here used as a difference, shows the arms of Aske quartering Dawtrey, the arms of his mother.

143. Arg. on a chevron sa., between 3 wreaths each enclosing a fleur-de-lys gu., 3 estoiles arg., on a chief az. 3 pens in pale or. Hales. H. VIII. baro scci'.

Grant by Wriothesley and Benolt in French, dated 16 November 1520, to John Hales, of 'Natyngdon' (Nackington), Kent., gent., 'dargent a une cheveron de sable entre troys chapelettz et dedons chacun chapelett une fleur de liz de gueules sur le cheveron trois estoyles de huyt poyntz du champ et ung chef dassure sur le chef troys plumes en pale dor' (Add., 5506, fol. 109). John Hales was appointed third baron of the exchequer, 1 October 1522, and second baron 14 May 1528. He died about 1539.

144. Az. on a fess or, between 3 boar's heads couped arg., a lion passant gu. Gough.

Harl., 1359, fol. 3, tricks as above and adds Wm. Gough, gent., co. Chester, granted by Sir Thomas Holme, knt., clarenceux, 12 December, 21 E. IV. Harl., 1507, fol. 214, has an imperfect copy of the grant.

145. Paly of 6 gu. and vert a tent arg., garnished and poled or, on a chief or a fret between 2 crescents sa. Gybson. H. VIII.

Add., 26702, fol. 53, gives a trick and ascribes to — Gybson, serjeant-at-arms, H. VIII. Will of Richard Gibson, serjeant-at-arms, St. Thomas the Apostle, London, and Romney, Kent, P.C.C., 21 *Hogen*, 1534. In the town books of New Romney he is described as of London, 'sergaunt of the armys of our soverayng lord the king', when buying property in March 1521, and in 1529 he was baron for the town in parliament (*Arch. Cant.*, xxvii, 50).

**32.** 146. Arg. on a fess counter-embattled sa., between 3 pellets each charged with a bear's head erased arg., a martlet between 2 pilgrim's bottles or. Grave.

The dexter bottle has been tampered with and turned into an escallop.

147. Arg. on a chevron between 3 leopard's faces az., langued gu., 3 pallets or each charged with a pellet. Hengscott. H. VIII.

148. Arg. 3 pierced cinquefoils in pale gu. between 2 martlets sa., on a chief az. a pelican or, vulning itself, between 2 combs arg. Holgill. H. VIII.

Add., 26702, fol. 55, tricks and ascribes to — Holgill, master of the Savoy. William Holgill was master of the Savoy 1517-49. Will, P.C.C., 21 *Coode*, 1550.

149. Gu. a saltire chequy or and ermine between in chief a key, to the dexter a burning branch (the flames or), in base a dolphin, to the sinister a martlet, all arg., on a chief or a pellet charged with a greyhound statant arg. between a squirrel sejant to the dexter and a bull's head couped to the sinister sa. Holston. H. VIII.

Harl., 1116, fol. 41, William Holston, of Suffolk, 'port goules a une salter dermyne et dor eschequet' enter une clef une tison de feu une merlete et une dolphyn dargent a une chef dor sur le chef une pellet enter une escurell et une teste de toureau coupes de sable sure la pelet une levrier dargent goute dasur'. Also tricked in Harl., 1422, fol. 30$^{b}$, and Add., 26702, fol. 56, and in both ascribed to William Holston, of Suffolk, granted by Wriothesley and Benolt, 24 March, 16 H. VIII (1525).

150. Az. on a chevron or 3 pierced cinquefoils purpure, on a quarter arg. a lion passant per pale sa. and gu. Hawys. H. VII.

Add., 26702, fol. 57, tricks the shield as above and ascribes to Roger Hawys, of London, granted by Wriothesley, garter.

(End of third skin)

**33.** 151. Sa. 2 chevrons arg., the lower charged with 3 pierced mullets sa., in base a cinquefoil arg., on a quarter or a lion passant guardant gu. Gille.

152. Arg. on a chevron az., between 3 demi-lions passant gu., langued az., 3 bezants, on a chief sa. 2 piles arg. Hull.

Harl., 1433, fol. 32, tricks arms and ascribes to John Hull, of Hambledon, Surrey, granted by Wriothesley and Benolt in 1527.

153. Arg. 3 hurts each charged with a falcon close arg., on a chief vert an eagle displayed or, a bordure engrailed gu. Hutton.

Grant by Wriothesley and Benolt dated 16 November 1528, to Thomas Hutton, of Dry Draton, Cambs., 'dargent a trois hurtes sur chascun hurt ung faulcon close du champ a un chief de vert sur le chief une aigle desploie dor becquee membré de pourpre a une bordure engrailee de gueules' (Harl., 1172, fol. 4$^{b}$).

154. Arg. on a fess engrailed gu., between 3 falcons rising az., beaks and legs gu., 3 bezants, each charged with a lion's head erased sa. Gorge.

Add., 26702, fol. 41, tricks and ascribes to John George, of Bawdington (Baunton, Glouc.), H. VIII. Harl., 5887, fol. 27, only tricks.

155. Arg. a greyhound courant sa. between 3 wolf's heads erased gu., a bordure az. charged with 8 sixfoils arg. Henege de heynton of lyncolln'shir.

**34.** 156. Arg. a fret az. each joint charged with a bezant, on a chief sa. a stag trippant between 2 mullets or, each mullet charged with a torteau. Grene.

157. Arg. on a chevron engrailed gu., between 3 mullets sa., 3 quatrefoils or, pierced az. Andrewes. (H. VIII added.)

Grant by Wriothesley, 27 March 1529, to Richard Andrewes, of Synton, Worc., 'dargent a ung cheveron engresle de gueusles entre trois molettz de sable sur le cheveron trois quatrefoilz dor perces dassur' (Harl., 7025, fol. 199). This is an original grant.

158. Sa. two bars gemelles between 3 doves arg., on a chief or 3 hurts each charged with an escallop shell or, impaled by arg. on a cross engrailed sa. 5 crosslets fitchy or, for the abbey of Waltham. Fuller. H. VIII.

Robert Fuller, abbot of Waltham, 1526–38.

159. Az. a chevron ermine between 3 eagles displayed arg., on a chief embattled or 3 pellets. Wall. H. VIII.

Grant by Barker to Wall, of Crich, co. Derby, 'asur a cheveron ermyns betweene iii egletts dysplayed silver a chief bateled gold on the same iii peletts'. In the margin is written 'Norrey King of Arms' (Stowe, 692, fol. 92b). Harl., 5846, fol. 105b, gives ermine. Thomas Wall was appointed norroy, 27 May 1516.

160. Or on a chevron engrailed sa., between 3 pellets each charged with a bird or, a fleur-de-lys between 2 conies courant respecting one another arg. Fligh de aunwik.

**35**. 161. Gu. on a fess between 3 boar's heads couped or, 3 lions rampant sa. Wiat. H. VII.

162. Sa. a chevron ermine between 3 mill-rinds or, on a chief arg. a lion passant gu. Tourner. H. VII (Salop. added).

Add., 26702, fol. 44b, tricks as above and ascribes to Tourner of Salop.

163. Gu. on a bend wavy arg. 3 shovellers sa., beaks and legs or. Rede. Ric' III.

164. Gu. crusily fitchy 3 demi-woodhouses wreathed round the head and waist arg. Woode. E. IIII.

165. Arg. a greyhound courant between 3 martlets sa., a bordure engrailed gu. bezanty. Willms. H. VII.

**36**. 166. Gu. on a fess counter-embattled between 3 lion's gambs erased and erect arg., armed az., 3 crescents gu., a crosslet fitchy or in chief for difference. Uvedale. H. VIII.

167. Barry of six az. and arg. 3 stag's heads cabossed or, on a chief or a wolf passant gu. between 2 annulets sa. Woodwarde. H. VIII (Barkesh'. added).

Harl., 1359, fol. 31, tricks arms as above, and adds the arms and crest granted by Wriothesley and Benolt, 26 April, 19 H. VIII, 1572 (*sic*, error for 1527), to George Woodward, of Upton, Bucks., gent. Add., 26702, fol. 46, calls him John Woodward, of Berkshire, 'alibi' of Upton in Bucks., and gives the date as 19 H. VIII, 26 April 1527.

168. Arg. 2 bars sa. between 3 torteaux. Perker. E. IIII.

169. Or on a cross quarterly az. and gu. a falcon or, between in chief a lion passant per pale arg. and or, in base an annulet, and at each side a squirrel sejant or. Pacey. H. VIII.

Add., 26702, fol. 47, tricks the arms as in the roll making the lion or, and Harl., 5846, fol. 84b, blazons the lion per fess. In the Public Record Office is a grant of a 'shylde' only by Thomas Wryotesley, 'garetier kyng of armes of Englisshmen', and Thomas Benolt, 'clarenceau', to Master Richard Pace, 'the Kyng's high and principall Secretary', dated at London,

7 February 1517, 9 H. VIII. This coat differs from the coat given on the roll in the smaller charges. It reads 'gold a crosse asure and gueules quartered, on the cross a faulcon betwene a rose, a leopard's hedd, a squerill, and a besant of the feelde'. In the picture which 'apperith' in the margin, the rose is in chief, the besant in base, the leopard's head on the dexter, and the squirrel on the sinister. This coat is tricked in Harl., 1359, fol. 7$^{b}$, and ascribed to Mr. Richard Pace, &c. Amongst other preferments Pace held the deanery of St. Paul's from 1519 to 1536, in which year he died.

170. Gu. on a fess arg. between 3 wings or a torteau charged with a lion passant guardant or. Porter (Roger. Glouc.' added).

On the fess are shown two bezants which have been painted over hurts, and it is possible the fess is intended to be entirely or. In base originally two wings, but painted over and one substituted. The whole shield has been much tampered with, possibly when 'Roger. Glouc.'' was added.

**37.** 171. Arg. on a chevron sa., between 3 pellets, the two in chief each charged with a martlet and the one in base with a trefoil slipped arg., 3 mascles or. Pratt. H. VIII (of Norfk' added).

172. Arg. a fess engrailed vert, fretty or, in chief 3 bells sa. Porter. H. VII (Wigorn added).

173. Or on a chevron az. a hawk between 2 pheons or, on a chief sa. a lion passant between 2 crescents arg. Warton. H. VIII (glouc' added).

174. Lozengy arg. and vert on a chevron az. 3 bezants, on a chief gu. a goat's head erased between 2 pierced cinquefoils or. Yong. H. VIII (doctor Oxins' added).

Add., 26702, fol. 49, tricks the coat as above and ascribes to D$^{r}$. Yonge, of (blank), in co. Oxon. and Berks., H. VIII. John Yong, LL.D., master of the rolls, 1508–16, dean of York, 1514–16, died 25 April 1516. Will (P.C.C., 17 *Holder*) printed in *Test. Ebor.*, v, 72. Monument in the Rolls Chapel with arms, but with annulets on the chevron, and escallops in the place of cinquefoils on the chief, figured in *Arch. Journ.*, li, 150.

175. Arg. on a chevron engrailed sa. 3 escallops arg., in chief a lion passant guardant vert charged with bezants and plates alternately, armed and langued gu. Tolley. H. VIII.

Tricked in Add., 26702, fol. 49, but the lion az. and charged with plates only, and ascribed to Thomas Tolley, of Ramsey, H. VIII.

**38.** 176. Az. on a chevron arg., between 3 plates each charged with a martlet sa., 3 escallops gu., a bordure engrailed or. Tompson. H. VIII.

177. Arg. a fess nebuly az. between 3 fleurs-de-lys each within the horns of a crescent sa., a bordure engrailed gu. Sedenor.

178. Arg. a chevron az. between 3 lion's gambs erased gu., armed az., on a chief sa. 3 cressets or, wicks gu. Wytwang. H. VIII.

179. Arg. a cross chequy gu. and or between in the first quarter a bouget and in the others an eagle displayed, a swan, and an escallop, sa. respectively, on a chief az. a lion passant guardant or, spotted sa. Purde. H. VII.

180. Arg. a fess chequy or and az. between 3 pellets each charged with a bird arg., on a bordure gu. 5 escallops and 5 martlets or alternately. Pett. H. VII (mayor of London added).

Harl., 1430, fol. 94[b], tricks this coat and ascribes to John Pett, of London, gent., granted by Wriothesley and Benolt, 9 September 1519. There is no mayor of London of this name.

**39.** 181. Arg. on a cross sa. a stag's head couped between 4 martlets arg., on a chief az. a cross patonce or between 2 bezants. Veysey. H. VIII.

Add., 26702, fol. 50[b], tricks the coat, but the birds have legs and are not martlets, and attributes to John Veysey, bishop of Exeter. John Vesey, alias Harman, was bishop from 1519–51 and 1553–4. He was buried at Sutton Coldfield, Warw., where on his monument roses take the place of bezants on the chief.

182. Gu. a fess between in chief a cross patonce enclosed by an escallop and a fret or, and in base a pelican in its piety arg. Wodyngton. H. VII (deen of archeps, added).

Stowe, 692, fol. 93[b], only gives the name, Thomas Wodington, D.D., official of the court of Canterbury, dean of the arches, and canon of Llandaff. He was rector of St. Mary-le-Bow, 1514–22, and treasurer of Chichester in 1519. Add., 26702, fol. 50[b], makes the fess arg.

183. Or 3 bars az., over all on a bend engrailed sa. between 2 cotises gu. 3 escallops or. Saxbey. H. VII.

184. Gu. 3 bezants each charged with a lion's head erased az., langued sa., on a chief arg. a lance and a halbert in saltire sa., heads az. between 4 pellets. Vaughan. H. VIII (of Dower in Kent added).

Grant by Barker to Thomas Vaughan, gent., bailiff of Dover, Kent, 'de goulz a trois besantz sur chascun une teste de leon rassee dasur a ung chief dargent sur le chief une lance et une halberd en saultier de sable les ferres dassur enter quatourze pelletes' (Stowe, 692, fol. 93[b]).

185. Sa. on a fess arg., between 3 pheons or, a stag's head cabossed sa. between 2 torteaux, in chief a gem ring or. Parker. H. VIII. (of Glouces[t] added).

Tricked in Add., 26702, fol. 51[b], and ascribed to Thomas Parker, of Gloucester, H. VIII.

**40.** 186. Arg. 3 escutcheons gu. each charged with a bend vair between 2 cinquefoils or, a bordure engrailed az., bezanty. Patemer. H. VII.

Add., 26702, fol. 51[b], tricks coat and ascribes to Henry Bryggs, alias Patemer, of Halifax, Yorks., H. VII. See also nos. 243 and 374.

187. Arg. 2 bars engrailed gu., the upper charged with 3 martlets, the lower with 3 escallops or, on a quarter az. a right hand couped in bend arg. Toll. H. VIII.

Add., 26702, fol. 53, tricks the coat and ascribes to — Toll, serjeant-at-arms, H. VIII.

188. Sa. on a chevron between 3 stones or, spotted sa., 3 oak leaves vert, on a chief or a crown gu. between 2 choughs ppr. Stonywell. H. VIII.

Add., 26702, fol. 53, tricks the coat and ascribes to — Stoniwell, abbot (blank), H. VIII. John Stonywell was the last abbot of Pershore, to which he was elected in 1527. He was also prior of Tynemouth, and on 28 April 1524 was provided as suffragan for York with the title 'episcopus Poletensis' (Pulati in Epirus and the province of Antivari). In his will, P.C.C., 15 *Tashe*, he is called 'bisshopp of Poloten'. He died in 1553 and was buried at Longdon, Staffs.

189. Arg. on a saltire between 3 birds sa. and in a base a cock gu., a cinquefoil between 4 spearheads arg., on a chief gu. a bezant charged with a rose gu., seeded or, enclosed by 2 plates, the dexter charged with a fleur-de-lys az., and the sinister with a lion rampant sa. Vaughan. H. VIII.

Tricked in Harl., 1359, fol. 28, with a note that the arms were granted 12 June 1527, 19 H. VIII, by Wriothesley to William Vaughan, of Payans Castle, Wales. Add., 26702, fol. 53$^{b}$, adds 'doctor of the civil law'.

190. Arg. on a chevron between 3 boar's heads erased sa., 3 doves rising arg., on a chief or 2 lions passant enclosing a rose gu., seeded or. Whaley.

Add., 26702, fol. 54, tricks the coat and ascribes to — Whalley, abbot of St. Mary's, York. He was abbot 1521–9. The boar's heads are probably intended for whale's heads.

**41.** 191. Az. on a chevron between 3 leopard's faces arg., langued gu., 3 pierced cinquefoils gu., in chief a crescent or for difference. Petite.

192. Sa. on a fess arg. between 3 plates each charged with a crescent gu., 3 lion's heads erased az., langued gu. Pateshale.

193. Sa. on a fess between 3 owls or, 3 crosslets sa., a bordure or. Pymme (of mydelsex added).

194. Or on a fess dancetty between 3 billets az. each charged with a lion rampant or, 3 bezants. Roll' (gorge of devensher, H. VIII, added).

195. Arg. on a bend between 2 mullets gu. 3 trefoils slipped arg., on a chief az. a pelican or vulning itself between 2 flowers arg., stalked or. Palshyd (of Hampshir' added).

**42.** 196. Arg. on a fess engrailed between 3 wolves passant sa., claws and tongues gu., collared arg. studded with hurts and torteaux, 3 boar's heads couped or. Salford (H. VIII added).

Confirmed by Wriothesley and Benolt at London, 14 May 1528, 20 H. 8, to William Salford, gent., clerk of the signet, son of John Salford of Derby, son of John Salford of Burton upon Trent, and brother of William Salford of London, gent., 'dargent a ung fece engrelee entre troys loupz passans de sable a chascun ung collier entour son col du champ hurtee tortee sur la fece troys testes de sanglier coupees dor' (Arundel, 26, fol. 73$^{b}$).

197. Arg. 2 chevrons sa. each charged with 3 fleurs-de-lys or, on a chief az. a lion passant arg. Smyth (of Essex added).

198. Gu. on a bend engrailed or, between 3 stringed horns arg., 3 hurts. Rympynden.

199. Arg. on a chevron between 3 spear heads gu., 3 plates, on a chief az. 3 hawks or. Ryce (of London, H. VII).

Add., 26702, fol. 60$^{b}$, tricks the coat, but with bezants for plates, and ascribes to Symon Ryce of London, H. 7.

200. Per pale gu. and az. on a chevron or, between 3 leopard's heads erased arg., spotted sa., a rose purpure, seeded or, enclosed by 2 choughs ppr. Rawlyne (H. VIII added).

Tricked in Add., 26702, fol. 60$^{b}$, and ascribed to Richard Rawlins, archdeacon of Huntingdon,

H. VIII. Richard Rawlins was appointed archdeacon of Huntingdon in 1514, and bishop of St. David's in 1523. He died 18 February 1535–6.

**43.** 201. Arg. 6 sparrows sa., 3, 2, and 1, on a chief indented gu. 2 swords in saltire between 2 wolf's heads erased or. Sparow (H. VIII added).

Harl., 1359, fol. 35$^{b}$, draws arms as above, but in a lozenge, and notes the birds as sparrows. Also says given by patent by Wriothesley and Benolt, 25 July 1516, 8 H. VIII, to Dame Anne Dymmock, wife of Sir Robert Dymmock, knight and banneret, and daughter of John Sparrow of London, gent. Also in Add., 14295, fol. 43$^{b}$.

202. Arg. a chevron between 3 rooks sa., on a quarter barry of 8 or and az. a lion rampant gu. Treheyron (of Wallis, H. VII, added).

The birds should be herons, but are not so drawn. Possibly for Thomas Treheyron, Somerset herald, who married Katherine, daughter of John Writhe, garter, widow of — Horton, whose arms are also on the roll.

203. Gu. 2 wolves passant or, on a quarter arg. a demi-rose gu., seeded or. Veillelobos (H. VII added).

Metcalfe, *Book of Knights*, p. 37, notes Sir Ferdinando de Villa Lobos, 'a Spanyard', knighted at the marriage of Prince Arthur, 14 November 1501.

204. Gu. bezanty, on a quarter arg. a demi-griffin segreant gu. Sarmient (H. VII added).

205. Vert a bend arg. between 6 nails or. Tyler (H. VII added).

Borne by Sir William Tyler, knighted at Milford Haven in 1485. (Metcalfe, p. 10.)

**44.** 206. Arg. a chevron gu. between 3 pheons, points upwards, sa. Swilyard. H. VI (of Essex added).

207. Az. 3 swords in triangle, pommel to pommel, arg., hilted gu., pommels and quillons or, on a chief or a lion passant gu. between 2 bougets ermine. Sampson. (Error for Sampson Norton.)

The bougets here are probably an error for maunches. Add., 26702, fol. 62, ascribes to Sampson Norton and draws the bougets as maunches. According to Metcalfe's *Book of Knights*, p. 12, Sir Sampson Norton, who was knighted in Brittany in 1485, bore this coat with the maunches.

208. Per pale purpure and az. 3 lucy's heads erect and erased or, each swallowing a Welsh spear-head arg. Waughan.

Granted to Hugh Vaughan, esq., by John Writhe, garter, under date 'le jour de Saint Ambroise, mille quatre cens quatrevingtz et douze' and 'le septiesme' H. VII (April 4, 1492). 'Cest assauoir dasur et de pourpre party par pall a trois testes de luces rasees dor engueulans trois fers de lances dargent en la facon de galles', and for his crest 'ung home en son pourpoint dargent, ses chaulses de sable, tenant ung cousteau en sa main dextre'. (Original grant on loan in the Victoria and Albert Museum in 1917.)

209. Az. 2 organ pipes in saltire between 4 crosses patty arg. Willm̃s (of oxinford added).

210. Arg. a chevron between 3 lozenges ermines, a bordure gu. Shaa (of London, H. VII, added).

(End of fourth skin)

**45.** 211. Sa. 3 stags trippant or. Roderham (of Hertfordsh' added).

212. Sa. on a chevron between 3 pierced cinquefoils arg. 5 billets gu. Wodhowse (of norfk' added).

213. Sa. a bend vair between 2 shovellers or, on a chief or 3 pierced cinquefoils gu. Reymond (of London added).

214. Or a bull statant gu., horned arg., between 3 roach's heads erased and erect vert, langued gu., a chief chequy arg. and az. Roche (of London added).

215. Gu. on a bend or between a lion rampant and a ram salient arg., 3 double-headed eagles displayed vert, beaks and legs gu. Ramrigge.

Borne by Thomas Ramridge, abbot of St. Albans, in the Parliament Roll for 1515. The eagles probably derived from the arms of Abbot Delamare.

**46.** 216. Per bend gu. and sa., on a fess between 3 pierced mullets or, a griffin passant az. Pilborough (of Essex added).

217. Arg. a bend gu. goutty arg., between 2 birds gu., a chief chequy or and sa. Playdell.

218. Arg. 3 mullets gu., pierced or, in bend between 2 bendlets sa., the upper bendlet charged in chief with a bezant for difference. Tresawell.

219. Sa. on a fess arg., between 3 anchors or, 3 lion's heads erased gu., langued az. Weynman.

Grant in the Public Record Office by Thomas Wrythe aïs Wriothesley, garter, and Roger Machado, clarenceux, dated 20 September 1509, 1 H. VIII, to Richard Weynman, of Witney, co. Oxon., gent., 'de sable a une fece dargent entre troys ancres dor dessus la fece trois testes de lyons rasees' (? sable, word obliterated in original).

220. Quarterly az. and gu., 4 lions passant guardant or, on a chief indented arg., 3 pellets. Pert.

Tricked in Add., 26702, fol. 66$^{b}$, and ascribed to Doctor Thomas Pert.

**47.** 221. Per pale az. and gu. a cross engrailed between 4 doves or, collared az., on a chief quarterly ermine and or 2 roses gu., seeded or, stalked vert. Ruthall.

Harl., 6179, fol. 45$^{b}$, tricks and says 'Tho. Ruthall, Dr. p Xpof. B. g. (per Christopher Barker, garter). Thomas Ruthall was bishop of Durham, 1509–23, and the above arms appear in the Parliament Roll for 1515.

222. Per pale or and gu. 3 lions passant guardant and a bordure, all counter-changed. Whitipoll (of London added).

223. Paly of 4 az. and gu., on a fess wavy or, between 3 stag's heads couped arg., 3 choughs. Shurley.

224. Per pale az. and gu. on a cross patonce arg. 5 martlets sa., on a chief or a fleur-de-lys between 2 annulets purpure. Wolcot.

225. Arg. on a cross engrailed and fleuretty sa., between 4 doves az., beaks and legs gu., collared or, an escallop or. Pexall.

**48**. 226. Sa. on a fess between 3 holy doves arg., nimbed and legged or, a leopard's face between 2 covered cups gu. Pentecost.

Add., 26702, fol. 69, tricks and ascribes to 'Pentecott Abbott of Abbingdon'. Thomas Pentecost, alias Rowland, was the last abbot of Abingdon, 1514–38. His arms, as above, occur in the Parliament Roll for 1515.

227. Arg. a bend chequy ermine and ermines between 2 lion's heads erased gu., langued sa., on a chief az. 3 billets arg. Style.

228. Arg. a chevron gu. between 3 popinjays vert, beaks and legs gu., a bordure az. bezanty. White (of hampsher added).

Harl., 5846, fol. 109$^{b}$, tricks the crest of White and adds 'the coat is more auntient as appeareth by old monuments in South Warnborne church being Argent a cheveron gules betweene 3 parrots all vert beaked and legged gules all within a bordure azur besante'. The crest was granted by Barker as appears by Stowe, 692, fol. 94. Harl., 5887, fol. 32, ascribes to 'White of Moyles courte, in Hampshire'.

229. Or on a chevron az., between 3 lion's heads erased purpure, 3 annulets or, on a chief gu. 3 martlets arg. Vevyan.

Add., 26702, fol. 71, tricks and ascribes to Thomas Vivian, bishop, and prior of Bodmin, Cornwall. Harl., 1079, fol. 121, gives a pedigree of Vyvyan starting with John Vivian, of Bodmin, brother of the prior, and in the margin tricks the above coat and says 'these armes confirmed to Thomas Vyvyan, Pryor of Bodmyn and his heires, 20 H. 8, by W. R., garter, and Thomas Benolt, clar''. Thomas Vivian was bishop of Megara in Greece in 1517, suffragan of Exeter, 1518–32, and prior of Bodmin, 1519-32. Buried at Bodmin under a monument with his arms.

230. Per pale arg. and vert 3 crescents, that in dexter chief gu., that in sinister chief arg., and that in base per pale gu. and arg. Topelyff.

**49**. 231. Arg. on a fess purpure between 3 boar's heads couped sa. a covered cup arg. enclosed by 2 cushions ermine, tasselled or, a bordure engrailed gu. bezanty. Warcopp.

232. Arg. on a fess az., between 3 shovellers sa., beaks and legs gu. a swan enclosed by a rose and a leopard's face or. Shuldhm̃.

233. Az. on a fess between 3 squirrels sejant arg. each cracking a nut or 3 oak-leaves vert, on each 3 bezants in pale, a bordure engrailed or. Stokwod.

Add., 14295, fol. 97, sets out at length the grant to Edward Stokwode of Westminster, Middx., gent., by Wriothesley and Benolt, 10 June 1522, 'd'assur a une fece entre trois escurelles d'argent chacun relivant sur ung noisette d'or sur la fece trois foilles de chesne de vert sur chacun foille trois besantz en pal a une bordure engrelee d'or tortee.'

234. Az. on a chevron engrailed between 3 lozenges arg. 3 griffin's heads erased az., on a chief chequy or and gu. a greyhound courant arg., goutty de sable. Waryn.

Stowe, 692, fol. 93, grant by Barker, 'Rauff Warryn de Londres gentilhom̃e portte d'asur a ung cheveron engrallee entre trois lozenges dargent sur le cheveron trois testes de griffons rassees de champ a ung chief dor et de goulz eschequete sur le chief ung lieverrier courrant d'argent goute de sable.'

235. Or on a chevron sa., between 3 shovellers az., beaks and legs gu. 3 plates. Yeo (of Devonsher added).

**50.** 236. Arg. 3 eagle's heads erased sa., a bordure engrailed az., bezanty. Sharpp.

237. Arg. on a fess between 3 talbots passant gu. 3 fusils or. Potkyn.

Grant in French by Wriothesley and Benolt, 25 May 1517, to William Potkyn, of Sevenoaks, Kent, gent., printed in *Proceedings*, xvi, 348.

238. Sa. a cross botonny between 2 leopard's faces in chief and 2 cinquefoils in base or, a bordure engrailed arg. charged with 8 torteaux. Westbery.

Add., 26702, fol. 57$^{b}$, tricks, but with 4 leopard's faces, and with 10 torteaux on the bordure, and ascribes to Robert Westburey, abbot of ——, by Wriothesley. Robert Westbury occurs as abbot of Cerne, Dorset, in 1510 and again in 1522.

239. Arg. a stag's head cabossed and between the horns a cross patty gu., a bordure gobonny or and az. Qwikerell.

240. Sa. a stag statant arg. between 3 pheons or, a bordure engrailed or pelletty. Parker.

**51.** 241. Az. on a chevron engrailed between 3 hawks or, a lily enclosed by a lion passant and a shrimp respecting one another gu. Wilcok'.

Possibly for Henry Wilcocks, archdeacon of Leicester, 1515–18.

242. Arg. on a cross gu. between 4 turtle-doves az. a garb or enclosed by 4 bezants, on a chief az. a lion passant between 2 leopard's faces or. Wynter.

Harl., 4900, fol. 19, sets out the grant in Latin by Wriothesley, garter, Benolt, clarenceux, and Tonge, norroy, 26 March 1526, 17 H. VIII, to Thomas Wynter, dean of Wells and prebendary of Litton in that cathedral; archdeacon of York and Richmond, and prebendary of Strensall in the Metropolitan church of York; provost of St. John, Beverley, and prebendary of the prebend of the altar of St. Peter in that collegiate church; prebendary of Milton in Lincoln Cathedral, and of Norwell in the collegiate church of Southwell; rector of Rudby, Yorks., and of St. Matthew's, Ipswich. The arms *gallice*, 'd'argent a ung croix de gueles entre quatre turterells en leur propre colour becquees membres de pourpre sur la croix une gerbe entre quatre besantz a ung chief dasur sur le chief ung lyon passant entre deux testes de leopardes dor.' In the margin the shield is tricked, but with the lion passant guardant in error. Peter le Neve in the margin has noted he was illegitimate son of Cardinal Wolsey, and refers to Anthony Wood (I, *Fasti*, 40 (ed. 1721)).

243. Arg. a fess gu. between 3 escutcheons gu. each charged with a bend vair between 2 cinquefoils or, a bordure az. bezanty. Unnamed. (Pasmere de pasmerheys devon added).

See also nos. 186 and 374. Add., 26702, fol. 74$^{b}$, tricks with the field or.

244. Or on a fess between 3 birds sa. 3 crescents or. Watkyns.

245. Blank.

William le Neve Clarentius.

(End of fifth skin and of front of roll)

The shields now continue on the back of the roll, beginning on the fifth skin and with the 52nd row.

**52**. 246. Arg. on a fess sa. 3 escallops arg., in chief 3 pellets each charged with a fleur-de-lys or. Thomas Malyart de Somersetshier.

247. Or 5 lions rampant sa., on a chief gu. 3 pierced mullets or. John Marton de London esquier.

Add., 26702, fol. 77, tricks coat, but with 6 lions, 3, 2, and 1.

248. Per pale gu. and az. 3 chevrons couped counter-changed, fimbriated arg. Saye.

249. Ermine 3 bends gu. Quenkyn.

250. Arg. 3 lozenges sa., a label of 5 gu. Pychard.

**53**. 251. Gyronny of 8 or and sa. Wdemers.

252. Arg. a chief gu., a bend az. Cromewell, lorde.

253. Arg. a cross sa. Hopsale.

254. Arg. a bend sa. Stopham.

255. Arg. 2 bends gu. Suthley.

**54**. 256. Ermine on a fess engrailed gu. a pierced mullet arg. Leveryk.

257. Arg. 10 torteaux, 4, 3, 2, and 1, a label of 3 az. Babington.

258. Arg. 2 bars az., in chief 3 hurts. Wyttelbery.

259. Arg. a fess sa., in chief a pellet between 2 mullets sa. Dingley.

260. Arg. a fess between 3 crosses patty sa. Garnon.

(End of fifth skin)

**55**. 261. Quarterly ermine and gu. in the first and fourth a chief indented gu., on a fess az. 5 bezants. Gattigere.

262. Barry of 8 arg. and sa. a pale counter-changed and surmounted by a fess gu. Akelonde.

263. Arg. 2 bends and in sinister chief a crosslet sa. Bonde.

264. Sa. 2 chevrons arg. Cecyle.

265. Sa. a cross or between 4 plates. Buttys.

(End of fourth skin, much of which is blank, whilst the coats in rows 52–5 are less neatly finished and the ascriptions appear to be in a different hand.)

**56**. 266. Arg. on a fess gu., between 2 chevrons az. each charged with 3 escallops arg., 3 garbs or. Eden. H. VIII.

267. Arg. on a chevron gu., between 3 wolf's heads erased az., 3 crosslets fitchy arg., on a chief sa. an escallop between 2 pierced cinquefoils or. Halgh.

268. Arg. on a chevron gu. between 3 owls sa. 3 lozenges ermine, on a chief az. 3 hazel bushes or. Haselwode. H. VIII.

Stowe, 692, fol. 53$^{b}$, grant by Barker, 'Edmond Haselwode de Northampton gentilhome port dargent a ung cheveron de goules enter trois testes de heuhon rasies de sable becques

et les eieux dor sur le cheveron iii lozenges d'ermyne a ung chief dasur sur le chieff trois couldres dor.' The crest is a squirrel holding in its paws 'une branche de coulder de vert les noisettz dor'.

269. Az. a fess arg. fretty gu. between 3 harts courant or. Hartgrave.

Stowe, 692, fol. 53, grant by Barker, 'John Hartgrave of Bolyngbroke, Lincs., gent., dasur a ung fece dargent enter trois cherfs courantz dor fretee de goulz'.

270. Gu. on a fess arg. between 3 crescents or, 3 escallops az. Ellys.

Stowe, 692, fol. 38, grant by Barker to Thomas Ellys of Swynshed, Lincs., 'goulz a ung fece dargent entre trois croissantz dor sur la fece trois coquiles dasur'.

**57.** 271. Az. a hunting horn arg., banded gu., string twisted gu. and or. Horne.

272. Ermine on a bend sa. 3 lucy's heads erased arg. Gilyott (of Yorks added).

273. Arg. on a chevron engrailed az., between 3 torteaux, 3 cinquefoils arg., a chief chequy or and az. Hobson.

274. Arg. 3 bars wavy sa. on each 3 plates, on a chief gu. a gun between two anchors or. Gonson (of london added).

275. Gu. on a fess between 3 estoiles arg. 3 mullets sa. Everard.

**58.** 276. Arg. on a chevron engrailed between 3 talbot's heads erased sa., langued gu., an estoile or. Hall.

277. Arg. on a chevron between 3 bugle-horns sa., stringed gu., 2 marigolds arg., a bordure gobonny or and az. Hornby.

Add., 26702, fol. 67$^{b}$, tricks with flowers gules, and the stalks and leaves argent.

278. Arg. on a chevron sa., between 3 columbines az., stalked and leaved vert, an estoile or. Hall.

279. Sa. on a bend between 3 leopard's faces or, 3 oak-leaves vert, on a quarter ermine a cross patonce gu. Etton.

280. Arg. a chevron lozengy or and sa. between 3 griffin's heads erased gu., on a chief vert a crown or between 2 bezants. henreyong (Henry Yong).

**59.** 281. Arg. a fess chequy az. and purpure between 3 crossbows, stocks gu., bows az. nailed or, stirrups, triggers, and cords sa. Horton. Ric. III.

282. Arg. on a fess az. between 2 wolves passant in chief and a crossbow in base gu., 3 martlets or. Horton.

283. As 282, with crescent on dexter martlet for difference. Horton.

284. Arg. on a chevron engrailed sa., between 3 holly branches vert, berries gu., 2 cats (gibs) combatant arg., spotted sa., on a chief az. a cross patty between six gouttes or. Gibbis, p'or.

Add., 26702, fol. 73, tricks and in margin says the animals are cats. Ascribes to 'Gybbs Abb's, Catley Prior'. There is no list of the priors of Catley, Linc., which was of the order of Sempringham. A ring engraved in *Proceedings*, xi, 97, bears the device of a cat devouring a mouse, with the legend, 'gret : wel : gibbe : oure : cat :'

285. Arg. on a chevron gu., between 3 goat's heads erased az., collars and horns or, 3 lozenges or, on a chief sa. a lion passant guardant ermine, langued gu. Hynde.

**60**. 286. Per pale arg. and sa. 2 wolves passant between 3 quatrefoils in pale counter-changed, a bordure per pale gu. and or. Horden (of Kent added).

Stowe, 706, fol. 11b, tricks and says given by patent in French by Wriothesley and Benolt to Thomas Horden of Kent, 24 May, 14 H. VIII.

287. Per pale gu. and az. on a bend between 2 eagles displayed arg. 3 garbs vert, on a chief or 3 pierced mullets sa. Goylyn.

288. Per chief arg. and vert a hand cresset (?) in bend counter-changed between a demi-rose in chief gu., seeded or, and in base a demi-lion rampant or. Escurissaga.

Amongst Barker's grants (Coll. of Arms, E. D. N. 56, fo. 64b) is a trick of this coat, but with a lion rampant in place of the demi-lion. The demi-rose and lion are no doubt an augmentation granted by Barker.

289. Arg. on a fess az. 3 escallops arg., a bordure engrailed az. Fenne. H. VI.

290. Arg. on a fess az. 3 lozenges or. Feldyng. H. VI.

**61**. 291. Az. 3 dolphins in pale arg., crowned or, between 2 pairs of stockfish in saltire arg., over the mouth of each a coronet or, on a chief gu. 3 pairs of keys in saltire or. Fishmongers. H. VIII.

In the Bodleian, Ashmole MS. 858, fol. 17, is a copy of the grant to the Company of Fishmongers by Wriothesley and Benolt, dated 19 October 1512, 'dazure 3 daulphins en pale enter quater stookfishes deux a deux p saltier dargent, les finnes les dents et sur le teste d'chescun pisce un corone d'or, un cheif gules sur le cheif 6 cleifs d' St. Pierre deux a deux p saltier des corones' (sic, but (?) a miscopy for d'or). This coat is also recited in the grant of supporters and confirmation of 'auncyent armes', by Robert Cooke, clarenceux, 17 December 1575. The arms are a combination of those of the Stockfishmongers and of the Saltfishmongers.

292. Gu. on a chevron between 3 shacklebolts arg., 3 swans az., beaks and legs gu., a bordure engrailed or pelletty. Fenrother. H. VII.

293. Gu. a chevron ermine between 3 lion's heads erased or, on a chief arg. 2 bars nebuly purpure, and a pale az. charged with a pelican vulning itself or, the whole within a bordure or thereon 8 hurts. Fox. H. VIII.

Stowe, 692, fol. 41, Barker's grants, John Fox de Ropsley, Lincs., gent., 'gueules ung cheveron dermyn entre trois tests de lyon rasees dor a ung chieff ung pall dasur et sur le dit pall ung pellican a une bordure entour le tout dor hurttee'.

294. Arg. on a bend between 2 lion's heads erased gu., langued az., a dolphin between 2 doves or, collared az. Frankelyn. H. VIII.

295. Sa. on a fess arg. 3 finches vert, legs and beaks gu., on a chief or 3 pellets, the dexter charged with a martlet, the sinister with a fret, and the centre with a flower, or. Fynche, doctor.

**62.** 296. Or 2 bars nebuly az., on a chief gu. 2 arrows in saltire enclosed by 2 castles arg. Fordhm̃.

297. Gu. a chevron chequy arg. and sa. between 3 plates, on each a pierced cinquefoil purpure, on a chief or a dove between 2 columbines az., stalked and leaved vert. Faryngton.

Add., 26702, fol. 55, tricks and ascribes to 'Farrington, Abbott of Reding'. Hugh Cook, alias Farrington, was the last abbot of Reading.

298. Per fess arg. and sa., in chief a greyhound courant, in base an owl, a bordure engrailed, all counter-changed. Ford (of devensher added).

Stowe, 692, fol. 41, Barker's grants, 'Devonshire, John Forde of Aysscheberton port dargent et de sable ꝑti ꝑ fece une livrier courant en haulte ung huhon ꝑ basse a une bordur engresslee enter changees, le heuhon becquee membre dor.'

299. Quarterly vert and gu. a fess dancetty ermine, in chief a lion passant between 2 martlets arg. Fyshar.

300. Sa. a fess dancetty between 3 mullets arg. Fenkyll.

**63.** 301. Arg. on a fess sa., between 3 lion's heads erased gu., langued az., 3 anchors or. Fermour.

302. As 301, with in chief a crescent az. charged with a bezant for difference. Fermour.

303. Arg. on a saltire sa., between 4 lion's heads erased gu., langued az., a martlet or enclosed by 4 bezants, on a chief az. an anchor between 2 pallets or. Fermour.

This coat appears on the manor house of Wolterton, in the parish of East Barsham, Norfolk, built either by Sir Henry or Sir William Fermour, in the reign of Henry VIII.

304. Sa. on a chevron engrailed or, between 3 demi-griffins segreant ermine, 3 martlets gu., impaling gu. 2 bends vair, on a canton or a dog courant sa. S$^{r}$. Thomas Baldry and Elisabeth his wyfe.

See nos. 31 and 371.

305. Arg. a chevron az. between 3 birds vert, legs and beaks gu., on a chief gu. 3 branches of trees or. Richard Choppin' alderman of Lond'.

Add., 26702, fol. 76$^{b}$, tricks the birds as cocks and ascribes to Richard Chopping, alderman of London. He died 1536; will in P.C.C., 34 *Hogen*, in which he is described as of St. Giles, Cripplegate, and High Roding, Essex.

**64.** 306. [Az.] on a chevron between 2 couplecloses, both engrailed, and 3 lions passant guardant or, armed and langued gu., 3 crosses moline sa. Fouller.

The field uncoloured. Stowe, 692, fol. 41$^{b}$, Barker's grants, Bryan Fowler of Sowe in co. Staff., 'asure a cheveron ii cottises ingrailid betwene iii lyonceux regardaunts golde armyd and langed goills uppon the cheveron iii crosses formelie sables.'

307. Gu. a fess engrailed between 3 boar's heads couped arg. Judde. H. VI.

308. Lozengy or and gu. Crones.

309. Barry of 4 arg. and sa. a bend gu. Dronsfeild.

310. Arg. a bend wavy sa. ? Burton (almost obliterated).

**65.** 311. Arg. a chevron gu. between 3 plummets sa. Jenyns. (Maior added.)

Harl., 1049, fol. 67, tricks and attributes to Sir Stephen Jennings, mayor in 1508. Stephen Jennings merchant tailor, was sheriff in 1498, mayor in 1509, when he was knighted on the day of the King's coronation and is said to have 'payed his fee lyke a baron'. Benefactor to the church of St. Andrew Undershaft, and founder of a school at Wolverhampton. Died in 1523. Will, P.C.C., 8 *Bodfelde*.

312. Arg. on a cross raguly az., between 4 pheons gu., 5 bezants. Jonys. Ric'. III.

313. Arg. a fess engrailed between 6 pierced cinquefoils sa. Ilam.

314. Per saltire or and sa. on a saltire counter-changed a maiden's head arg., hair and wreath or. Marshall. E. IIII.

315. Gyronny of 8 sa. and gu. a lion rampant or, and a bordure az. crusilly or. Mathew. H. VI.

**66.** 316. Arg. a fess between 3 bunches of grapes sa. Moters. H. VI.

317. Az. on a chevron between 3 lions passant guardant or 3 escallops sa. James. E. IIII maior.

Harl., 1049, fol. 62, tricks and ascribes to Sir Bartholomew James, mayor in 1479. Bartholomew James, draper, sheriff in 1462, was knighted in 1471 on the King's return from the battle of Tewkesbury.

318. Or on a cross az. 5 fleurs-de-lys or, a bordure engrailed az. Jenour.

319. Per pale az. and purpure on a chevron between 3 trees arg. a pink gu., seeded or, stalked vert, between 2 marigolds gu., stalked vert. Langtony' p'or Forest. H. VII.

Edward Forest, prior of Lanthony, Glouc., in 1513.

320. Arg. on a fess per fess indented az. and purpure between 3 marigolds or, stalked vert, 3 trefoils slipped arg. Marlowe, abbas. H. VII.

John Marlow, abbot of Bermondsey, 1473–1516.

**67.** 321. Arg. on a fess sa. between 3 gillyflowers gu., stalked vert, a mitre between 2 roses with curved stems or. Newbold abbas.

Stowe, 692, fol. 70, 'Newbold (abbas in margin) arg. on a fesse sa. a myter between ii (sketch of a flower) or iii jellye flowers gu., stalkyd vert.' Thomas Newbold was abbot of Evesham 1491–1513.

322. Arg. on a chevron sa. between 3 oak-leaves vert 3 bezants, on a chief gu. a sea-mew between 2 anchors arg. Monoux. H. VII. maior.

Grant by Wriothesley and Benolt, 4 October 1514 (Guillim, ed. 1724, p. 362). George Monoux, sheriff in 1509, mayor in 1514, died 9 February 1543–4. Will, P.C.C., 5 *Pynnyng*, as George Monox only.

323. Ermine a chevron wavy gu. between 3 greyhounds courant sa. Kenysworth. E. IIII. maior.

Add., 26702, fol. 37, tricks this coat quartered with ermine, a pierced mullet arg., and says 'Kenilsworth L$^{d}$. Mayor a$^{o}$ 12 (error for 21) H. 7'. Harl., 1049, fol. 66$^{b}$, gives the coat unquartered and ascribes to Thomas Knesworth, fishmonger, mayor 1505, 21 H. VII, but at

fol. 51[b] of the second part (Harl. 6076) makes him Sir Thomas. Thomas Kneysworth, fishmonger, son of John Kneysworth, of Kneesworth, Cambs., sheriff in 1495, mayor 1505, died in 1513. Will, P.C.C., 12 *Fetiplace*, as Thomas Kneysworth only.

324. Arg. a chevron engrailed gu., on a chief az. 3 pierced mullets or. Kebill. H. VII. maior.

Henry Kebyll, grocer, son of George Kebyll, of London, mayor in 1510. Died 1517 (?). Will, P.C.C., 30 *Holder*.

325. Sa. on a bend between 2 leopard's faces arg. 3 crosses patty az., on a chief or 3 escallops gu. Milborne. H. VII. maior.

Add., 26702, fol. 39, tricks and ascribes to 'Mylborne, L[d] Mayor, H. 7', as also does Harl., 1049, 69[b]. Sir John Milbourn, draper, son of John Milbourn, of Long Melford, Suffolk, sheriff 1510, and mayor 1521, died 1536. Will, P.C.C., 35 *Hogen*, as Sir John.

(End of third skin)

**68**. 326. Per pale gu. and sa. on a cross engrailed arg. 5 lozenges purpure, on a chief or 3 eagle's legs erased az. Mundy. H. VII. maior.

Add., 26702, fol. 37[b], tricks with the field simply gules. Harl., 1049, second part, fol. 55[b], gives the field per pale but makes the lozenges gules. John Munday, goldsmith, son of William Munday, of Wycombe, Bucks., sheriff 1514, mayor 1522, knighted 1529. Died 1537. Will, P.C.C., 9 *Dyngeley*, as Sir John.

327. Sa. a chevron ermine between 3 herons arg. Heron.

328. Arg. a fess nebuly gu., on a quarter sa. a lion passant or. Kebyll. H. VII.

329. Paly of 4 gu. and vert, on a chevron arg. a greyhound's head erased sa. between 2 pierced cinquefoils az., on a chief or a pellet charged with a demi-lion rampant arg. between 2 crescents sa. each charged with 3 plates. Lawson. H. VIII.

Add., 26702, fol. 47, tricks as above, but with the cinquefoils sa., and ascribes to George Lawson, H. VIII. Stowe, 692, fol. 64, Barker's grants, gives a simpler coat for George Lawson, of Barfield, Essex, gent., 'de goulz et de vert ꝑti ꝑ pale de quater pieces a ung chief dor sur le chief une teste de levriere rasee enter deux croissantz de sable sur chacun croissant trois plates.'

330. Arg. on a fess az. between 3 unicorn's heads erased sa. 3 lilies or. Lee of Querendon.

Grant by Wriothesley and Benolt, 18 August 1530, to Robert Lee, of Quarrendon, Bucks. Printed in *Catalogue of Heraldic Exhibition*, Burlington House, 1894, p. 62.

**69**. 331. Arg. on a fess az. 3 boar's heads couped or, in chief a lion passant purpure. Lewys Res of Kery. H. VII.

332. Gu. on a fess wavy between 3 swans arg., beaks and legs or, 3 crosses patty sa., each charged with 4 bezants. Lane. H. VIII.

333. Arg. on a fess gu., between 3 pierced cinquefoils az., a stag statant between 2 pheons or. Laward. H. VII (als lord added).

334. Arg. on a chevron engrailed purpure, between 3 fusils sa., 3 bezants, on a chief paly of 4 gu. and az. an antelope courant or. Marshall. H. VIII.

335. Gu. on a fess engrailed arg., between 3 bougets erminois, a cross patty between 2 cloves sa., on the cross 5 bezants. Meery. H. VIII.

Stowe, 692, fol. 68[b], Barker's grants, John Meery or Meory, of Northall, Essex, 'goulz a ung fece engrelee dargent entre trois bouges dor erminees sur la fece une croix forme entre deux cloves de gerofoll de sable sur le croix cinq besantz.'

**70.** 336. Or 3 delves gu. between 2 bars sa., on the upper 3 and on the lower 2 martlets arg. Keyley. H. VIII.

Stowe, 692, fol. 61, Barker's grants, 'Thos. Keyle de Londers, gent., dor a trois delves de goulz enter deux barres de sable sur la primer barre iii sur la ii[de] deux marlets dargent.'

337. Arg. on a chevron between 3 wolf's heads erased sa., langued or, 3 lilies arg., on a chief gu. a tau-cross between 2 escallops or. Lupton. H. VII.

Roger Lupton, provost of Eton, 1503–39.

338. Sa. on a fess wavy between 3 doves arg. 3 wings gu., a bordure engrailed or. Muriell. H. VII.

Add., 26702, fol. 52, tricks with the field azure, and ascribes to Edward Muryell, of London, H. VII.

339. Sa. 3 lucies hauriant arg., on a chief or a lion rampant sa. goutty d'or, between 2 pellets, the dexter charged with a martlet, the other with an anchor or. Kitson. H. VIII.

The grant by Wriothesley and Benolt to Thomas Kitson, of Hengrave, 14 April 1527, is printed in Howard's *Visitation of Suffolk*, II, 97, from the original in the possession of Sir Edward R. Gage, bart.

340. Az. on a chevron between 3 crosses patty fitchy arg., a pierced cinquefoil enclosed by 2 escallops gu., on a chief or a greyhound courant sa. between 2 pellets. North.

**71.** 341. Arg. on a fess gu. between 3 cock's heads erased sa., beaked gu., a greyhound courant between 2 pheons or, a bordure engrailed az., bezanty. Jacson. H. VIII.

342. Gyronny of 10 az. and or a lion rampant ermine, on a chief arg. an escallop between 2 fleurs-de-lys sa. Muklow.

343. Or on a chevron sa., between 3 bougets gu., 3 estoiles or, a bordure engrailed az. Lilegrave. H. VIII.

344. Sa. an eagle displayed in bend between 2 bendlets arg., on a chief or 3 oak-leaves vert. Jordan.

Stowe, 692, fol. 58, Barker's grants, Jourden of (Callys in margin), 'sa. a egle dysplayed in bend betwene ii cottizes ar. a cheefe or iii oken leaves vert.'

345. Sa. 3 leopard's faces in pale or between 2 pallets arg. each charged with 3 crosslets gu. Lonnge. H. VIII.

**72.** 346. Sa. on a chevron engrailed, between 3 pierced mullets or, a leopard's face enclosed by 2 martlets gu., on a chief arg. 3 moorcocks sa., beaked, wattled, and legged gu. More.

347. Gu. 3 bars wavy arg. on each 3 martlets sa., on a chief or 3 pellets. Marlande.

348. Arg. on a chevron gu. between 3 pellets a cock arg.; above a fillet vert and in chief a rose gu., seeded or, enclosed by 2 leopard's faces az., langued gu. Longland eps. H. VIII.

John Longland, bishop of Lincoln, 1521-47.

349. Sa. on a bend between 2 eagles displayed arg., a wreath enclosed by 2 escallops gu. Malyn.

Borne by John Malyn, abbot of Waltham, in the Parliament Roll for 1515. He resigned in 1526.

350. Az. a chevron between 3 griffin's heads erased arg., on a chief or a lion passant guardant gu. enclosed by 2 torteaux. Jenyns. H. VIII.

Granted by Wriothesley and Benolt to William Jenyns, of London, alias Lancaster Herald, 10 February 1516, 8 H. VIII.

**73.** 351. Ermine on a chief indented az. 3 coronets or. Lytton. E. IIII.

352. Az. a wolf salient arg., langued gu., collar chequy gu. and or. Kydwelly. H. VII.

353. Or on a chevron sa., between 3 pellets each charged with a lark arg., an estoile or, on a chief gu. a lion passant arg. Larke.

354. Arg. 3 demi-garters az., buckled and garnished or. Nerbonne. H. VII.

Grant to Peter de Nerbonne by Henry VII for good service, entered on the Patent Roll for 17 Henry VII, 23 June 1502, 'dargent a troys demys jarretieres dazur bouclees et gaurnies dor.'

355. Az. on a fess counter-embattled arg., crusilly sa., between 6 martlets or, a lion passant guardant sa., armed and langued gu. Maydeley.

**74.** 356. Az. a saltire embattled between 4 martlets arg. Ketelby.

357. Arg. 3 pales gu., a bordure engrailed az., on a quarter gu. a spur or. Knyght.

358. Per pale arg. and or a fess nebuly gu. between 3 hinds trippant sa. Jekyll. H. VII.

359. Quarterly arg. and sa. on a bend gu. 3 martlets or, a label of 5 or, on each point an ermine spot. Lacy. H. VII.

360. Gu. on a cross arg., between 4 unicorn's heads erased or, 5 hurts. Legh.

**75.** 361. Per pale arg. and sa. a double-headed eagle displayed counter-changed, beaked and gorged with a coronet or, on the dexter wing a martlet or for difference. Lovedaye.

362. Arg. on a fess engrailed between 3 annulets gu. 3 covered cups or. Kylom. H. VII.

363. As 362, but the centre cup replaced by a mullet arg. Kylom. H. VII.

364. Sa. a chevron between 3 escallops arg., on a chief or 3 greyhound's heads erased sa. Lenacre. H. VIII.

365. Or a chevron and in dexter chief a crescent sa. Merfyn. H. VII.

Thomas Mirfine, skinner, who was sheriff in 1511, bore this coat with a mullet arg. on the chevron for difference; also as mayor in 1518 (Harl., 1049, fol. 67$^{b}$ and 69).

**76.** 366. Az. on a chevron between 2 eagles displayed in chief and a lion passant in base or, 3 torteaux, the centre one charged with a leopard's face, the others with escallops arg. Nychills. H. VIII. Mydlesex.

Much rubbed and nearly effaced. Stowe, 692, fol. 70$^{b}$, Barker's grants, in which he is styled 'Master John Nychells, of London, gent., his wife was Sir Steven Jenyns daughter the mayre'. Arms, 'dasur a ung cheveron entre deux aigles desploies et une lyon pasant dor sur le cheveron trois torteaux sur le torteau au millieu une test de leopard et sur chacun des autres deux torteaux une coquiel dargent.'

367. Sa. on a bend between 2 handcuffs arg., 3 pheons gu., on a chief or a demi-lion rampant issuant between 2 lozenges az. Johnson. H. VIII. Ebor'.

368. Or a chevron az. between 3 mascles gu., on a chief sa. a wolf courant arg. Meggs' (Henry VIII added).

369. Arg. on a bend cotised sa. a fleur-de-lys between 2 pierced cinquefoils arg., on a chief az. a cross flory enclosed by 2 leeks or. Morgan.

370. Or 3 escutcheons sa., each charged with a pheon or. Henry Parker off Essex.

The grant by Barker, 21 February 1537–8, to Henry Parker, of Frith Hall, Essex, gent., is printed in *Misc. Gen. et Her.*, 3 S., i, 97.

**77.** 371. Gu. 2 bends vair, on a canton or a greyhound courant sa. The lady Elysabeth Bauldry dought' of William Forde of Hadley Suff.

Stowe, 692, fol. 43, Robert Forde, of Hadley, co. Suff., 'bereth gu. ii bends ar. and sa. verrey on a canton gold a demye greyhound passant sa. langued gu. Geven to hym and his posteritie by Hawley Clarenceaulx, 10 December 1539, 32 H. 8'; and Lady Elizabeth Bawdrye, daughter of William Forde, of Hadley, Suff., 'gu. ii bends verrey a canton or thereon a greyhound sa.' See nos. 31 and 304.

372. Arg. a chevron sa. between 3 cocks purpure, on a chief az. a fox courant or. Lord John Fox abbot of Missenden.

Elected abbot 21 November 1528. Date of death unknown.

373. Ermine 3 bars gu., on a quarter az. a cross engrailed between 4 pheons or. Henry Huttoft de Southampton.

Add., 26702, fol. 76$^{b}$, tricks, but makes the cross arg.

374. Or a fess between 3 escutcheons gu., on each escutcheon a bend vair, a bordure az. bezanty. Pasmer de Pasmerheys devon.

See nos. 186 and 243.

375. Az. on a bend cotised arg. 3 escallops gu., on a chief or 3 martlets az. Pulleyn off Kelynghall Ebor.

**78.** 376. Sa. on a fess between 6 acorns or, 3 oak-leaves vert. Oeke. E. IIII.

377. Sa. a chevron engrailed between 3 owls arg., on a chief or 3 roses gu., seeded or. Oldom.

378. Sa. a chevron between 3 spear-heads arg., a bordure gu. Ormeston.

379. Lozengy az. and or on a chief arg. 2 mullets enclosing a saltire couped gu. and charged with 5 bezants. Overton.

380. Per fess or and gu. a pale counter-changed and 3 choughs ppr. Tate. H. VI.

(End of second skin)

**79**. 381. Arg. on a pale between 2 pallets sa. 3 greyhound's heads erased or, collared gu. Wikes. H. VI.

382. Az. a chevron ermine between 3 escallops arg. Townesende. H. VI.

383. Gu. a fess arg. fretty az. between 5 annulets or, 2 being in chief. Pykering. E. IIII.

384. Arg. on a fess debruising a lion rampant sa., armed and langued gu., 3 bezants. Thawits. H. VI.

385. Lozengy arg. and vert, a bend az. charged in the upper part with an annulet or and below with 2 goat's heads arg., horns or. Yong. H. VI.

**80**. 386. Per fess ermine and sa. a pale counter-changed, on the sa. quarters 3 millrinds arg. Turner. H. (obliterated).

387. Sa. floretty or, a lion rampant arg. (possibly ermine, but spots gone). Philippe.

Sir Matthew Phelip, mayor in 1463, bore this coat with the lion ermine.

388. Per fess az. and or a pale counter-changed and 3 lions rampant or. Whethyll. H. VI.

389. Az. a leopard's face or between 2 flaunches ermine, in chief 3 plates. Whityng.

390. Gu. a saltire or between 4 roses arg. Sallyng.

**81**. 391. Per chevron embattled gu. and or 3 lions rampant counter-changed. Wyfold. H. V.

392. Gu. a bend raguly arg. between 2 garbs or. Walwarth. E. IIII.

393. Arg. on a chevron sa., between 3 goat's heads erased az., 3 bezants, on a chief gu. 3 escallops or. Yarforde. H. VII.

394. Barry of 6 az. and arg. 3 trefoils slipped counter-changed, on a chief or 4 lion's heads erased gu., langued az. Troys. H. VII.

395. Arg. on a fess sa., between 3 whinberry plants vert, fructed gu., 3 holy doves or. Widdisbery.

Probably John Widdisbery, prior of Worcester, 1507–18.

**82**. 396. Arg. a chevron chequy az. and gu. between 3 crosses patty fitchy vert, on a chief embattled sa. 3 mullets or. Reignolt.

397. Az. on a fess between 3 crosses moline or, a unicorn couchant gu. Rest.

Harl., 1049, fol. 67$^{b}$, ascribes to John Rest, grocer, as sheriff in 1510, with the crosses pierced az., and at fol. 68$^{b}$, as mayor in 1516, with the crosses not pierced. John Rest died in 1522. In his will, P.C.C., 3 *Bodfelde*, he is described as of St. Benet Sherhog, London, and Peterborough. He was a son of William Rest, of Peterborough.

398. Arg. on a chevron between 3 mascles sa. 3 bezants. Wyngar. E. IIII.

Harl., 1049, fol. 64$^{b}$, ascribes to John Winger, grocer, sheriff in 1493, and fol. 66$^{b}$ mayor in

1504. At fol. 51 of the second part he is described as son of William Winger, of Leicester, and as dying in 1505, and buried at Woolchurch. In his will, proved 1505, P.C.C., 2 *Adeane*, he is described as of St. Mary, Woolchurchhaw, London, and St. Mary, Leicester.

399. Az. 3 eagle's heads erased and a bordurẽ or. Saull. H. VI.

400. Sa. on a fess embattled counter-embattled between 3 wings or, 3 pellets. Seymer. H. VIII. maior.

Thomas Seymour, mercer, son of John Seymour, of London, fishmonger, and grandson of Robert Seymour, of Walden, Essex, knighted at Calais, 12 H. VIII, mayor in 1526, died 1535. Will, P.C.C., 31 *Hogen*, in which he is described as of St. Stephen, Walbrook, London, and Walden, Essex.

**83**. 401. Gu. a fess vair, in chief a unicorn courant between 2 mullets, all within a bordure engrailed, or. Wylkynson.

The original grant by Wriothesley and Benolt to John Wilkinson, alias Harlyn, of London, gent., dated 3 August 1519, is reproduced in *Misc. Gen. et Her.*, 2 S., ii, 200.

402. Per pale arg. and sa. a fess nebuly between 3 griffin's heads erased and a bordure engrailed, all counter-changed. Spencer. H. VIII. maior.

James Spencer, vintner, son of Robert Spencer, of Congleton, Cheshire, mayor in 1527, knighted in 1529, died 1544. Will, P.C.C., 10 *Pynnyng*, in which he is described as of St. James Garlickhithe, London, and Congleton, Cheshire.

403. Arg. 3 bars sa. the upper charged with a lion passant reguardant between 2 martlets, the next with 3 cinquefoils, the lowest with 3 escallops, all or, on a canton az. a dove rising arg. Thurston. H. VIII.

Stowe, 692, fol. 90, Barker's grants, 'John Thurston gentilhomme jadis vicomt et alderman de Londers porte argent a trois barres de sable sur la premiere ung lion passant regardant entre deux marletz sur la second trois cinqfueillez parceis sur la troisesme trois couquilles dor, a ung canton dasur sur le canton ung colomb vaulant du champ becque membere de goulz.' This is immediately followed by a grant to Elizabeth, daughter of William Tenacre, son and heir of Henry Tenacre, of Halling, Kent, gent., and wife to John Thurston, late sheriff and alderman of London, 'geulz a fece escheque gold and asur betwene iii marletes silver becquez vert on the fece iii skalopes hermynees.' Stowe, 702, fol. 115, corresponds, adding to the entry about Elizabeth 'p Ch(ristopher) B(arker) G(arter)'. Harl., 1049, fol. 68$^{b}$, describes him as sheriff in 1516, goldsmith, and the king's embroderer, buried at St. Forsters.

404. Gu. a fess vairy or and az. between 3 bezants, on each of the latter a partridge gu., a bordure or charged with 8 billets sa. Pertriche. H. VIII.

Stowe, 692, fol. 77, Barker's grants, Nicholas Partrych, of London, gent., 'goullz a une fece dor et asur verre entre trois besans sur chacun besant une perdrix de champ a ung bordeure dor billette de sable.'

405. Gu. on a fess engrailed arg., between 3 bezants each charged with a peacock's head erased az., 3 mascles sa. Pecoke (Hen.?). H. VIII.

**84**. 406. [Per fess wavy] sa. and az. [a castle] arg. Rawsson. E. IIII (nearly effaced).

407. Arg. a saltire per saltire gu. and vert between 4 chough's heads erased ppr. Pynne. E. IIII.

408. Vert a chevron ermine between 3 wethers passant arg. Wetherby. H. VI.

409. Arg. on a fess dancetty sa. within a bordure gu. bezanty, a mullet or. West. H. VII.

410. Per chevron ermine and ermines, on a chevron per chevron sa. and arg. 3 estoiles or. Wigeston. H. VII.

**85**. 411. Arg. on a bend engrailed az., between 2 demi-greyhounds salient sa., 3 thistles or. Name obliterated. (? Smert.)

412. Sa. a fess engrailed arg., fretty sa. between 3 fleurs-de-lys and a bordure or. Style.

Stowe, 714, fol. 186, grant and confirmation by Wriothesley, garter, London, 28 March 1529, 20 H. VIII, to Humphrey Stile, son of John Stile, of Bromley, Kent, 'sables a ung fesse engresle enter trois fleur de liz a ung bordour dor la fesse frette du champ.'

413. Arg. (?) 3 crossbows or, stocks gu., cords, stirrups, and triggers sa. Name obliterated. (? Bowes.) H. VIII.

414. Arg. crusilly patty fitchy 3 greyhounds courant sa., collars or. Smythe. H. VII.

See *Proceedings*, xxix, 204, and xxx, 232.

415. Arg. on a fess vert, between 3 demi-griffins segreant sa., 3 bezants. Smythe. H. VII.

**86**. The shields in this have been cut through rather below the middle, but enough remains to allow the blazon to be read.

416. Gu. 3 bars arg., in chief a greyhound courant per pale or and ermine, collared az. Skipwith. H. VII.

Harl., 1359, fol. 17$^{b}$, tricks and ascribes to William Skipwith, of St. Albans, Herts., esq., given at London, 20 May 1507, 22 H. VII, by Thomas Writhe, alias Wriothesley, garter, and Roger Machado, alias Richmount, clarenceux. Also in Add., 14295, fol. 19$^{b}$.

417. Gu. on a fess ermine, between 3 annulets or, a lion passant az., in chief a crosslet fitchy arg. for difference. Underwood.

418. Gu. on a fess between 3 swans arg. 3 pierced mullets gu., a bordure engrailed or. Russell.

419. Per pale sa. and az. a fess chequy or and gu. between 3 goat's heads erased arg. Sedley. H. VII.

420. Arg. on a bend between 2 doves az., 3 garbs or, on a chief quarterly sa. and gu. goutty d'or, a horse courant arg., bridled or. Wastell. H. VII.

Add., 26702, fol. 44$^{b}$, tricks and ascribes to Wastell, prior of —, H. VII. John Wastell, prior of Dunstable, 1500–25.

# ORDINARY FOR ROLL

## ARMOUR AND ARMS.

**Bow:** 3 cross bows. 413.
**Gauntlet:** 3 gauntlets; a bordure. 131.
**Sword:** one sword between 2 beasts, lions. 85.
2 swords between 4 fleurs-de-lys. 30.
2 swords between 4 fleurs-de-lys; a bordure. 32.
3 swords; on a chief lion between 2 bougets. 207.

## BARS.

**Two bars:**
between 3 roundels. 168.
gemelles, between 3 doves; on a chief 3 roundels. 158.
on a chief 2 arrows between 2 castles. 296.
on a chief 3 annulets. 59.
on a chief 3 roundels. 258.
**On two bars:**
3 martlets; in chief on a canton a hand. 187.
**Three bars:** 13.
on a bend between 2 cotises 3 escallops. 183.
in chief a dog. 416.
in chief on a canton a cross between 4 pheons. 373.
**On three bars:**
beast, lion, etc.; on a canton a dove. 403.
birds, 3 martlets; on a chief 3 roundels. 347.
roundels, 9 plates; on a chief a gun between 2 anchors. 274.

## BEASTS.

**Boar:** 120.
**Deer:** stag between 3 pheons; a bordure. 60, 240.
2 stags and a well. 125.
3 stags. 211.
**Dog:** between 3 martlets; a bordure. 165.
,, 3 wolf's heads; a bordure. 155.
in chief; a bordure. 298.
3 dogs between crosses. 414.
**Lion:** 13, 109.
and on a chief cross between 2 mullets. 69.
and on a chief escallop between 2 lys. 342.
between bordure. 315.
,, 3 crosslets. 87.
,, 3 dolphins; a bordure. 71.
,, 2 flaunches and a gusset. 96.
between fleurs-de-lys. 387.
,, 3 gauntlets; a bordure. 89.
on one lion, gouttes. 112.
2 lions, lys in base. 111.
3 lions. 391.
3 lions and a bordure. 222.
4 lions; on a chief 3 roundels. 220.
5 lions; on a chief 3 mullets. 247.
**Ox:** and a bordure. 83.
between 3 fish's heads; a chief. 214.
**Wolf:** 352.
and a bordure. 5.
2 wolves; on a canton a rose. 203.
2 wolves; between 3 quatrefoils; a bordure. 286.

## BELTS.

**Three demi-garters:** 354.

## BENDS.

**One bend:** 94, 254, 309, 310.
and a chief. 252.
between 2 birds; on a chief 3 cinquefoils. 213.
,, 6 birds, martlets, and 2 cotises. 14.
,, 2 garbs. 392.
,, heads, 2 lions; on a chief 3 billets. 227.
,, 6 mullets. 10.
,, 6 nails. 205.
**On one bend:**
annulet and 2 goat's heads. 385.
birds, 3 martlets. 359.
,, 3 shovellers. 163.
crescent between 2 leopard's faces; on a chief 3 wheels. 129.
3 crosses; in chief an annulet. 1.
2 hands rending horse-shoe. 67.
3 heads, fishes, lucies. 272.
**On one bend between:**
beasts, one dog and dolphin, 3 roundels. 137.
,, 2 dogs, 3 birds. 107.
,, 2 dogs, 3 flowers. 411.
,, one lion and ram, 3 eagles. 215.
birds, 2 birds, gouttes; a chief. 217.
,, 2 doves, 3 garbs; on a chief a horse, 420.

**On one bend between** (*cont.*):
birds, 2 eagles, wreath between 2 escallops. 349.
„ 2 eagles, 3 garbs; on a chief 3 mullets. 287.
„ 2 swans, 3 roundels. 82.
„ 6 martlets, 3 roundels. 19.
cotises and 6 axes, 3 swans. 98.
„ a fleur-de-lys between 2 cinquefoils; on a chief a cross between leeks. 369.
„ 3 escallops. 13.
„ 3 escallops on a chief 3 martlets. 375.
„ heads, beasts, 3 lions; a bordure. 128.
„ heads, monsters, 3 griffins. 13.
flower, rose, between 2 griffin's heads; a bordure. 73.
2 handcuffs, 3 pheons; on a chief lion between 2 lozenges. 367.
heads, beasts, 2 lions, 3 crosses; on a chief 3 escallops. 325.
„ beasts, 2 lions, a dolphin between 2 doves. 294.
„ beasts, 3 lions, 3 leaves; on a canton a cross. 279.
„ monsters, 3 dragons, a bird. 77.
3 horns, 3 roundels. 198.
2 mullets, 3 trefoils; on a chief a pelican between 2 flowers. 195.
roundels, 3 pellets, 3 swans. 103.
„ 3 pellets, 3 swans; on a canton 2 lys, a ram, and a bend. 79.

**Two bends**: 255.
in chief a crosslet. 263.
on a chief heads, 3 lions; a bordure. 84.
on a canton a dog. 304, 371.

**Three bends**: 249.

**Four bends**: in chief a griffin's head. 62.

## BILLETS.

**Three billets**: between 2 bars. 336.

**Ten billets**: on a chief a demi-lion. 110.

## BIRDS.

**Eagle**: 361.
between 2 bendlets; on a chief 3 leaves. 344.

**Sparrows**: six; on a chief 2 swords between 2 wolf's heads. 201.

## CASTLE.

**One castle**: 406.
between gouttes. 13.

## CHEVRONS.

**One chevron**: 81, 112.
in chief a crescent. 365.
on a chief 3 mullets. 324.

**One chevron between**:
3 axes, halberts. 115.
beasts, 3 cats. 124.
„ 3 dogs. 323.
„ 3 dogs; on a chief 3 leopard's faces. 114.
„ 3 dogs; on a chief 3 martlets. 26.
„ 3 goats; on a chief a woodhouse between 2 cinquefoils. 56.
„ 3 lions; on a chief 3 wreaths. 113.
„ 3 sheep. 408.
birds, 3 birds; on a canton a lion. 202.
„ 3 birds; on a chief 3 trees. 305.
„ 3 cocks; on a chief a fox. 372.
„ 3 coots. 93.
„ 3 cranes. 63.
„ 3 eagles. 123.
„ 3 eagles; on a chief a rose between 2 lozenges. 51.
„ 3 eagles; on a chief 3 roundels. 159.
„ 3 herons. 327.
„ 3 martlets. 130.
„ 3 moorcocks. 80.
„ 3 owls; on a chief 3 roses. 377.
„ 3 popinjays; a bordure. 228.
3 castles. 11.
3 crescents. 28.
3 crosses. 10.
3 crosses; on a chief 3 mullets. 396.
3 escallops. 46, 382.
3 escallops; a bordure. 25, 126.
3 escallops; on a chief 3 dog's heads. 364.
flowers, 3 roses. 64, 118.
foils, 3 cinquefoils. 76.
„ 3 trefoils; on a chief a goat. 40.
3 garbs. 24, 27, 29.
heads, beasts, 3 deer; on a chief a roundel between 2 leopard's faces. 133.
„ beasts, 3 lions. 97.
„ beasts, 3 lions; on a chief 2 bars and a pale; a bordure. 293.
„ birds, 3 swans. 136.
„ human, 3 Moors; on a chief a crescent between 2 roundels. 99.
„ monsters, 3 griffins; on a chief a crown between 2 roundels. 280.
„ monsters, 3 griffins; on a chief a lion between 2 roundels. 350.
legs, 3 lions; on a chief 3 cressets. 178.
3 lozenges; a bordure. 210.
3 lozenges; on a chief a saltire between 2 hawks. 134.
3 mascles; on a chief a wolf. 368.

3 millrinds; on a chief a lion. 162.
3 mullets; on a chief a lion's head between 2 lozenges. 54.
3 pheons. 206.
3 plummets. 311.
roundels, 3 plates; on a chief a dove between 2 flowers. 297.
roundels, 3 torteaux; on a chief a lion between 2 crosses. 53.
3 spearheads; a bordure. 378.
3 trees; a bordure. 4.

**On one chevron:**

beast, lion between 2 lys. 88.
bird, hawk; on a chief a lion between 2 crescents. 173.
3 escallops; in chief a lion. 175.
3 estoiles. 410.
foils, 3 cinquefoils; on a canton a lion. 150.
head, beast, dog; on a chief a roundel between 2 crescents. 329.
roundels, 3 bezants; on a chief a goat's head between 2 cinquefoils. 174.

**On one chevron between:**

beasts, 3 lions, 3 escallops. 317.
„ 3 lions, 3 lozenges. 132.
„ 3 lions, 3 roundels; on a chief 2 piles. 152.
3 bells, an eagle between 2 lions; a bordure. 38.
birds, 2 eagles, 3 roundels. 366.
„ 3 hawks, a lily between a lion and a shrimp. 241.
„ 3 herons, 3 cinquefoils. 139.
„ 3 owls, 3 lozenges; on a chief 3 bushes. 268.
„ 3 shovellers, 3 roundels. 235.
3 bougets, 3 estoiles; a bordure. 343.
2 couplecloses and 3 lions, 3 crosses. 306.
3 crosses, a cinquefoil between 2 escallops; on a chief a dog. 340.
flowers, 3 columbines, an estoile. 278.
foils, 3 cinquefoils, 5 billets. 212.
3 fusils, 3 roundels; on a chief an antelope. 334.
3 shacklebolts, 3 swans; a bordure. 292.
heads, beasts, 3 boars, 3 doves; on a chief a rose between 2 lions. 190.
„ beasts, 3 dogs, an estoile. 276.
„ beasts, 3 dogs, 3 roundels. 55.
„ beasts, 3 goats, 3 lozenges; on a chief a lion. 285.
„ beasts, 3 goats, 3 roundels; on a chief 3 escallops. 393.
heads, beasts, 3 lions, 3 annulets. 95.
„ beasts, 3 lions, 3 annulets; on a chief 3 martlets. 229.
„ beasts, 3 lions, flower, rose between 2 choughs. 200.
„ beasts, 3 lions, foils, 3 cinquefoils. 191.
„ beasts, 3 lions, 3 pallets. 147.
„ beasts, 3 wolves, 3 crosses; on a chief an escallop between 2 cinquefoils. 267.
„ beasts, 3 wolves, flowers, 3 lilies; on a chief a cross between 2 escallops. 337.
„ birds, 3 eagles, 3 lozenges; on a chief 3 trees. 37.
„ monsters, 3 griffins, 3 escallops; in chief a cross. 135.
„ monsters, 3 griffins, a boar's head between 2 pheons. 39.
„ monsters, 3 griffins, 3 human heads; on a chief a cross between 2 lys. 57.
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A ROLL OF ARMS BELONGING TO THE SOCIETY OF ANTIQUARIES, *temp.* H. VIII, *c.* 1540

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V.—*A Roll of Household Accounts of Sir Hamon le Strange of Hunstanton, Norfolk*, 1347–8. *By* Hamon le Strange, *Esq., F.S.A.*

Read 22nd November 1917.

About eighty-four years ago the late Daniel Gurney, F.S.A., published in *Archaeologia* (xxv, 411–569) some extracts from the Household Accounts of the le Stranges of Hunstanton during the reigns of Henry VIII and his children. The Muniment Room at Hunstanton Hall, from which they were taken, contains a series of Rolls of similar accounts of the reign of Edward III. In the belief that the publication of some of these will be useful for purposes of comparison of prices, and as throwing some light on the manner of life of a knightly family in the middle of the fourteenth century, I have selected one of them for description in the present paper.

Sir Hamon le Strange of that day was the son of the Sir Hamon who had been enfeoffed in the manor of Hunstanton in 1310 by his elder brother John (VI) second Baron Strange of Knockyn, his mother being Margaret, daughter of Ralph Vernon of Mottran in Cheshire; this lady, as we shall see, survived her husband for many years, and appears as giving presents to her son at the date of the Roll under examination. Sir Hamon, the elder, died in 1317, leaving his son and heir, a minor, under the wardship of his mother, Margaret. Hamon, the younger, held the Hunstanton estate for upwards of fifty years, dying in 1369. He married Katharine, daughter of Sir John de Camoys, and her tombstone, inscribed with her name, still exists in the church at Hunstanton. This John was the second son of Sir Ralph de Camoys, who was summoned to parliament as Baron Camoys from 1313 to 1335; he died in 1336, being succeeded by his eldest son Sir Thomas, who fought at Crécy in 1346, but was never summoned to parliament; his son Ralph, whose name occurs in this Roll, predeceased his father, who lived until 1372. Before that date Sir Thomas Camoys's brother Sir John must have died, as his son, another Thomas, succeeded his uncle, and was summoned to parliament from 1383 to 1420.

Sir John de Camoys, father-in-law of Sir Hamon le Strange, had married Margaret, sister and co-heir with her sister Margery of Sir Richard Foliot, and in right of his wife Sir John had a share in the lordship of Gressenhall near

Dereham in Norfolk, which is frequently mentioned in these accounts. Both Hamon le Strange and John de Camoys had served continuously during the campaign of Crécy and the subsequent siege of Calais in 1346, and until King Edward's return to England in October 1347. Before that date a partition of the Foliot estate had been made between the two heiresses, Gressenhall with Elsing having been allotted and released to the elder sister, Margery, wife of Sir Hugh Hastings. John and Margaret de Camoys, however, seem to have retained some interest in Gressenhall, and John certainly presented to the church thereof in 1348, 1349, and 1361. It was, perhaps, in consequence of the above-mentioned partition that John de Camoys, on his return from France in the autumn of 1347, having no house of his own to go to at Gressenhall, came to an arrangement with his comrade-in-arms to live together at Hunstanton. This is shown by the heading of the Roll, which runs as follows (in Latin):

'Expenses of the house of Sir John de Camoys and Hamon le Strange in residence (*perhendinacione*) at Hunstanton, with the lady de Camoys, her damsel (*domicillâ*) and maid (*ancillâ*), and with Hamon le Strange and his wife, with her damsel and maid, and with the free servants (*liberis famulis*) living with the aforesaid John and Hamon—that is to say, Richard the Chaplain, the Butler, the Cook, with the groom (*garcifero*), two boys, and one lad (*garcione*) of the aforesaid Hamon, from the feast of St. Michael in the 21st of Edward III [29 September 1347] to the feast of St. Peter ad Vincula next following, in the 22nd year of the said King' [1 August 1348].

Margaret Foliot, as is shown by the inquest on the death of her brother Richard, was only eleven years old in 1324, so that her daughter Katharine, the wife of Sir Hamon le Strange, could not have been more than sixteen or seventeen years old in 1347, scarcely old enough to take an active part in the housekeeping at Hunstanton; yet apparently she already had a child born shortly before the period of this account, as there is an entry, on the 22nd December, of milk bought for 'Hamon son of Hamon le Strange'.

The expenses of each week are entered separately, day by day, together with mention of food, etc. in store, as to which no price or value is appended. At the end of each week a summing up is given, showing the total of cash payments, the quantities of various articles purchased, the amount thereof remaining in store, the quantity of beer brewed, and of provender consumed by the horses belonging to the lord, to Sir John Camoys, and to any guests staying in the house. There are a few marginal notes, of some interest from the point of view of family history, as they record the coming and going of the lord, and give the names of his guests. The Accounts are evidently kept by the steward, and, by way of showing his method of accounting, a translation is here given of all the entries for Christmas week 1347.

'Sunday. For flesh of oxen with one quarter of mutton, and for flesh of calf and pig bought by John the cook, 16*d.* For eggs bought by the said John, 1½*d.* For mustard bought by the said John, 1*d.* In store, one hen.

Monday in the Vigil of Christmas. For wheaten bread, 1 quarter of wheat and 3 bushels of mixtelyn. For beer brewed 1½ quarters of malt of barley, price the quarter 6*s.* For plaice and sprats bought by John the cook, 1¾*d.* In store, 1 cheling.

Tuesday. Christmas day. For bread bought for the kitchen by John the cook, ½*d.* For 2 flagons (*lagenae*) of wine bought at Heacham by the lord, 12*d.* In store, 1 porker for the Salting house (*lardario*), price 4*s.*; 1 small pig, price 6*d.*; 1 swan from the lord John Camoys, price, . . . . 2 hens of rent. And received from Gressenhall 6 rabbits, and 2 rabbits from John de Somerton as a gift. Whereof consumed (*in expensis*) 5 rabbits and one ham. For provender for 4 horses of the lord John Camoys for 2 days and nights preceding, 12 pecks of oats; and for one horse of Richard, the servant of John de Docking, for one day and one night, 2 pecks.

Wednesday on the feast of St. Stephen. For one flagon of wine bought by John Camoys. For spices bought of John the grocer at Lynn, 12*s.* 1*d.* Also at the same place 3 lb. of wax, bought of the same John the grocer, 15*d.* In store, 1 rabbit; 1 goose, price 3*d.*; 1 capon, price 2*d.*; 2 hens of rent. For provender for 4 horses of the lord John de Camoys, 12 pecks of oats, and for 1 horse of the bailiff (*messor*) of Lexham, 1 peck of oats.

Thursday on the feast of St. John the Evangelist. For 1 bushel of peas bought for soup by Richard the bailiff, 8*d.* For eggs bought by John the cook, ½*d.* In store, 1 goose, price 3*d.*; 2 hens of rent and 2 rabbits. For provender for 4 horses of the lord John de Camoys, 12 pecks of oats.

Friday. For plaice bought by John the cook, ½*d.* In store, 2 fish, viz. 1 ling and 1 cheling.

Saturday. On the feast of St. Thomas the Martyr. In store, 1 kymp of Herrings. For sprats bought by John the cook, ½*d.* For provender for 2 horses of the lord through the whole preceding week, 4 bushels, 2 pecks of oats.

Total of money, 21*s.* 11¼*d.* Whereof paid by John the cook 22¼*d.*

Total of corn, 1 quarter of wheat and 3 bushels of mixtelyn.

Total of malt, 1½ quarters.

Total of store, 1 porker, price as above; 1 small pig, price as above; 2 geese, 1 capon, & 6 hens of rent, as above.

Total of oats, 1 quarter, 2 bushels, 1 peck. Of which for the lord's horses, 4 bushels, 2 pecks; and for horses of the lord John Camoys, 4 bushels, 12 pecks.

One kymp of herrings.'

A comparison of these Household Accounts with those of 200 years later, published by Mr. Daniel Gurney, brings out the remarkable fact that, whereas in the time of Henry VIII the bill of fare at Hunstanton Hall was enriched by a large variety of game birds and wild fowl, in the reign of Edward III scarcely any birds at all, except domestic poultry and pigeons, were procured. This can scarcely have been due to the fact that fire-arms had not come into use in the

fourteenth century, since the *gonne* did not contribute much even in the sixteenth, and the *crossbowe*, which is mentioned in the Tudor Accounts as responsible for some of the game birds killed, was certainly as much in use at the date of the Roll under examination. Most of the wild fowl brought into the house in the sixteenth century were no doubt captured in nets or snares, though some are mentioned as having been taken by hawks, but these methods of fowling were probably equally well understood and practised at both periods.

The only game bird mentioned in the Roll is a single mallard, which was brought into the house in February, and cost 2*d.* A swan, no doubt a tame one, was given as a present at Christmas-time by John de Camoys, and this points to the conclusion that there was no swannery in the Hunstanton marshes; there is no evidence of a swan-mark having been used by the family. Of domestic poultry there is frequent mention; some, for which no price is given, being received as rent, and these are entered as *gallinae de preemptis*, referring either to some manorial right to take poultry at a fixed price, or else, when no price is mentioned, they were hen rent for small holdings. Some poultry was purchased almost every week; hens (*gallinae*) invariably cost 1½*d.*, and chickens (*pulcini*) 1*d.* a-piece, while capons were priced at 2*d.* or 2½*d.*, and geese at 3*d.*; in the month of June young geese are entered as in store, without any money value being attached; these, if not received as rent, must have been bred on the farm. Eggs to the value of ½*d.* to 2*d.* were bought every week, but the number acquired for these sums is never given. Pigeons (*columbae*) are priced at two to four a penny, and some special kind from the neighbouring village of Holme are entered more than once as *columbellae de Holme.* On the 29th May, among articles in store, appear four pigeons received as a present from the lady Margaret le Strange; this must have been Margaret Vernon, mother of Sir Hamon, then owner of Hunstanton, and is proof that she survived her husband for at least thirty years. Rabbits (*cunelli*) were brought in from the demesne, and were also received as a present from Gressenhall.

The variety of fish brought into the house was considerable, but some of the species are difficult to identify. A rather puzzling one is called 'Doggedrove'. At Michaelmas there is an entry of one hundred fishes 'de doggedrove' bought for store at the price of 40*s.* On the same day six bushels of salt, evidently for curing these fish, were purchased at a cost of 22½*d.* These doggedroves must have been large fish as the price of each works out at about 4¾*d.*, representing at least as many shillings to-day. Thorold Rogers, in his *History of Agriculture and Prices in England* (i, 608), says that he does not feel certain that the dogdrave of the northern counties is to be identified with the dogfish, but there can, I think, be little doubt that the species mentioned under this designation was the picked or common dogfish, which is still frequently caught on the Norfolk coast. Yarrell

mentions that they are sometimes taken in such numbers that fishermen load their boats with them to the water's edge. One of these shoals would easily account for the hundred fish bought on one day. Another species which I am unable to identify is the 'verdlyng'; it occurs always in conjunction with sea-fish. The value is only once mentioned in an entry of verdlyng bought by John the cook for a farthing; possibly they may be the garfish, or sea-pike, a fish of the mackerel species, the bones of which when boiled are bright green.

A purchase at Lynn of sixty stock fish for 2*s.* 2*d.* is recorded. Almost every week plaice were bought to the value of ½*d.* or ¾*d.*, but the number obtained for these small amounts does not appear. Haddocks cost a penny each, but sometimes two were got for that amount. Sprats, entered always as 'sprotts', were frequently purchased, usually with other sea-fish, the price being lumped together. A constantly recurring item is the 'cheling', which was no doubt the cod. Wright's *Dialect Dictionary* shows that in the north of England the cod is still known as the 'keeling'. A doubtful species is the 'hanon', which was often bought to the value of ½*d.*, or even ¼*d.*, though the number obtained is not stated. Ducange gives *Hano, piscis species, merlus*, so it is very likely the whiting. Another fish which I cannot identify is the 'grinling', or 'grindling'; the price of these is not stated. Other sea-fish that frequently recur in these Accounts are ling (usually spelt *lenge*), soles, muluell (probably not the mullet, but some species of cod), and mackerel which make their appearance towards the end of May; all these were bought to the value of a few pence, but the numbers comprised are not given. A turbot is only mentioned once, as also is a porpoise, but this was so much esteemed in those days that it is entered as bought at Lynn for 20*d.* 'by view of Richard the Chaplain'. Herrings naturally were of frequent occurrence, both white and red. Two hundred bought at Michaelmas cost 12*d.*, but the same number on the 1st November only cost 10*d.* On the 10th February 2,000 were bought for 13*s.* 4*d.* They were usually bought at so much the 'Kympe', or 'Kemp', an obsolete word for barrel.[1] Two 'kympes' bought by the lord on the 28th November cost 7*s.*

Of shell-fish we find mention of crabs, lobsters, whelks, mussels, and oysters; lobsters appear under the designation of *creuis* or *cravose*; two *creuis* were bought for 1½*d.*, on the 6th April. John the cook bought mussels on the 16th March to the value of one farthing. Whelks must have been consumed in considerable quantities, as on the 27th March the bailiff laid out 19*d.* for them. Oysters, priced at 1*d.* or 2*d.*, were purchased on several occasions, but here again no indication is given of the number procured for those sums.

Freshwater fish do not seem to have been much in request. Half a salmon was bought at Lynn on the 25th March, but the Roll is unfortunately defective

[1] *New English Dictionary*, under 'Kemp'.

as to the price; salmon to the value of 1¼*d.* was bought on the 28th May. John the cook laid out a halfpenny for trout (*trottae*) on the 19th July; these may have been sea-trout, but they were more probably the freshwater species, as sea-trout are not usually captured on our coast except during May and October. The only other freshwater fish mentioned are eels, and they only occur once, on the 7th May; it is somewhat curious that there is no mention of pike, roach, or perch, which probably then, as now, abounded in the moat round the house. A contracted word, generally given as *atam̃*, or *attam̃*, once only as *attamez*, presents some difficulty, as I have been unable, even with the help of friends in the Record Office, to extend it in any known form. It is appended to the names of several kinds of fish—chelings, ling, and herrings—and also to meat, such as ham and beef; it must therefore I think mean 'salted', or 'preserved', especially as no other word for salted is anywhere used; but what the word is I am quite at a loss to pronounce.

There is a curious entry on 23rd March of a barrel bought at Lynn for holding live fish (*pro piscibus vivis imponendis*); and, on the same day, a basket (*panerium*) was bought there for 2*d.*, perhaps to help in the operation.

The weekly supply of meat, excepting during Lent, is usually the first entry on each Sunday; unfortunately the weight or quantity purchased is not recorded, and separate kinds of meat are often lumped together. The following is a typical entry—'Sunday [7th October] In flesh of oxen and pigs with one quarter of veal, and a quarter of mutton bought by John the cook, 15*d.*' On the 28th October an ox without the horns was bought for 13*s.* for the salting house (*lardario*), and on another occasion an ox for the same purpose, without its head, cost a mark: four ox-feet with the belly cost 4*d.*, and two cows were priced at 15*s.* A quarter of veal was often brought in during the winter, when no doubt feeding-stuff for calves was somewhat rare. Concerning the price of mutton rather more details are given; a shoulder cost 1*d.*, a quarter was bought for 2*d.*, and a whole sheep in store was valued at 5*d.*, without the skin. Ewes (*oves matrices*) are several times entered as in store at a value of 5*d.* or 6*d.* without the skin, but a hogget (*hogaster masculus*) in the same state was only worth 4*d.* Lamb did not appear among the fare at Easter-tide, no doubt because in Norfolk they were not then fit for the table, but one was bought on the 11th May for 5*d.*, and a quarter of a lamb was bought with other meat on Whit-Sunday for 11*d.* Tripe, which we have already seen mentioned, appears again on the 31st January, when the cook bought tripe and four ox-feet for 4*d.* The usual price of a porker for salting was 4*s.* for a large pig, and 6*d.* for a small one (*porcellus*). A boar was received from Gressenhall on the 8th March. Ham (*perna baconis* or *perna atam̃*) was a frequent article of diet, but I cannot find one priced separately.

Dairy produce was supplied from the farm and was also bought from John

the dairyman (*le Deye*), but whether this individual was in business on his own account, or was a servant of the lord who kept an account against his master, does not appear; most likely the former, as butter, to the value of 1*d.* or so, was only very occasionally bought, apparently when the house-supply ran low. The same remark applies to milk, the price of which when bought was 1*d.* the *lagena*, a measure apparently equivalent to a flask or bottle. Cream was only bought once, on the 27th October, when John le Deye supplied a farthing's worth. A penny-worth of eggs was usually procured each week, but the number given for that sum is nowhere stated. Cheeses are mentioned at different prices, from 1*d.* to 6*d.* each, and must have varied according to the sizes.

The consumption of bread in the house was usually about a quarter of flour a week, sometimes two bushels more being purchased, as well as two bushels of mixtelyn, a mixture of rye and wheaten flour, very much the equivalent of that used in the war bread of to-day. The cost of the wheat was 6*s.* 8*d.* or 7*s.* a quarter, while the mixtelyn was priced at 5*d.* or 6*d.* the bushel.

A very important part of the food consumed in these days was that supplied by the spicer or grocer. It must be borne in mind that for lack of roots and winter food many of the cattle had to be killed and salted for consumption during the winter. Salt itself was very dear, being obtained entirely from salt-pans in which sea-water was slowly evaporated; some of these, belonging to the manor of Gaywood, may be seen in the meadows close to the railway to the north of that place. As this half-salted meat did not keep well, spices were in great demand to help in preserving it, and perhaps to disguise the flavour. For instance these accounts show that every week mustard to the value of ½*d.* or more was regularly bought. Pepper cost 2*s.* a pound, and salt, which was in much demand for preserving fish as well as meat, was priced at 1*s.* 6*d.* to 2*s.* 6*d.* a quarter. Sugar only occurs once during the year, namely on the 25th March, when a pound of it, bought at Lynn, cost 10*d.* Honey no doubt was much used for sweetening, but is never mentioned in the Roll, probably because it came from the garden, so neither it nor the daily supply of vegetables was brought into account. At Christmas-time spices to the value of 12*s.* 1*d.* were bought from John le Spycer at Lynn, and on Tuesday, the 19th February,[1] the following goods were procured thence: ½ lb. of pepper, 13*d.*; 10 lb. of almonds, 17½*d.*; half a flagon of oil, 7*d.* On Tuesday, 25th March, Richard the chaplain was sent in to Lynn a-marketing; besides half a salmon he brought back 3 pennyworths of 'flour de Rys'; one quarter (*sic*) of powder of ginger, 7*d.*; one quarter of powder of galingale, a mild kind of ginger, 9*d.*; oil, 10*d.*; and 1 lb. sugar, 10*d.* On a subsequent occasion 4 lb. of almonds were procured for 7*d.*, and one quart

[1] Evidently then as now Tuesday was market-day at Lynn.

of oil, specified as *oleo olive*, for 3*d*. One penny three farthings are mentioned as spent in walnuts. Peas costing 7*d*. a bushel were bought for making pottage, and something in the nature of porridge must have been an article of consumption, as there is an entry '*In farina facta pro potagio j quarr̃ auene*'.

Candles during the winter months formed no inconsiderable portion of the weekly expenses. Some appear to have been made at home from the tallow supplied by sheep, while from 2 lb. to 6 lb. of candles were often purchased, and on one occasion as much as 20 lb., costing 2*s*. The usual price seems to have been 1½*d*. per lb. On the 25th November there is entered, '*In dī tō de Cotoun empt̃ p candel̃ faciend̃ empt̃ p Joh̃ Coke iiij d*.' It is doubtful whether this is really cotton, which was introduced by the Arabs into the Mediterranean, and it may have been some other fibre used for making wicks. Tallow was bought at times to a small extent, not more than a halfpennyworth at a time, which would not have very largely supplied a lack of candles. Wax was also purchased, but this was very dear, costing as much as 5*d*. a lb.; evidently wax candles were not used for lighting the house, but only for devotional purposes in church; an entry of 2nd February expressly states that 4 lb. of wax was bought for oblations.

The only fuel brought into the house was peat, unless an entry of *cc. de rosco empt̃ p pistrina* refers to rushes used as fuel for heating the oven. Neither coal nor charcoal is mentioned, but considerable quantities of turves were brought into the house. A supply of 8,000 was laid in on 30th September which cost 1*s*. per thousand. These lasted until the 16th December when 1,000 were bought for 10*d*., and this price was maintained during January and February. In April 1,000 were procured for 6*d*., but the price rose again to 7*d*. in May, and 8*d*. in June. Altogether 24,000 are recorded as having been brought into the house during the ten months for which these Accounts run. The rise in price in the early summer is probably due to the previous year's supply having become exhausted, while the turf cut since was scarcely dry enough to burn well.

The beer for consumption by the household was all brewed at home, not regularly every week, but rather more than every other week, as the supply was required, or as other household work admitted; during the forty-four weeks covered by these Accounts brewing took place on twenty-five. The same amount of malt was always used, viz. 1½ quarters, no doubt the quantity for which the brewing plant sufficed; the cost of the malt varied from 5*s*. to 6*s*. a quarter: it is specified as being made of barley (*Bras̃ ord̃i*). I am informed by a friend in the brewing business that a quarter and a half of malt would produce about three to three and a half barrels at the strength probable in 1347. This works out at about two barrels a week, or ten gallons a day consumed in the house, evidently a very light beer that would not keep.

The consumption of wine was exceedingly small, only five flasks (*lagenae*) during the year at a cost of 6*d.* a-piece. Two of these were bought at Heacham at Christmas-time, and the others singly at the same place, where there was a small harbour three miles from Hunstanton. Whether this wine, sold by Richard le Taverner, was French or Rhenish is not stated.

The careful account of provender, supplied to the horses of the lord and his guests, supplies some features of particular interest, both as to the horses themselves, and as to the measurement of corn allowed to each. First, as to the horses, there are at least six different kinds mentioned. There was the palfrey, i. e. the usual riding-horse used by the lord and his guests; the *somer, somarius*, or sumpter horse, which carried his luggage; the stott, which in some glossaries is rendered as a stallion, and in others as a foal—as there were four of them at Hunstanton, it is not likely that so many stallions would have been kept, and therefore I take it that in these Accounts stotts mean foals. The hackney is frequently mentioned; this was a riding-horse perhaps somewhat coarser bred than the palfrey; it sometimes has other designations appended; e. g. *hakeneye Veyron, hakeneye Romeseye*, and *Froyle*; these are possibly the names of the horses. The *equus cursorius* was probably a hunter; and, lastly, there was the *dextrarius*, the heavy war horse, progenitor of our shire horse, capable of sustaining the weight of a knight in armour. As to provender, hay is never mentioned; it was not regarded as worth bringing into account, but careful details are given of the amount of oats allowed in each case. The measures used were the quarter, the bushel, and the peck; 8 bushels, as now, went to the quarter, but the modern reckoning of 4 pecks to the bushel will not fit the requirements of the case. For instance, on 9th December it is stated that 3 stotts had 6 bushels and 3 pecks during the week, each having 2 pecks a day. It is evident, therefore, that they consumed 42 pecks during the week. If from these 42 you deduct the 3 odd pecks above-mentioned, it leaves 39 pecks as the equivalent of 6 bushels, working out at $6\frac{1}{2}$ pecks to the bushel. Testing this by another instance, under date of 13th November it is stated that each stott got 2 pecks for a day and night, and that during the week they consumed 1 quarter 4 bushels—this, at $6\frac{1}{2}$ pecks to the bushel, works out at 56 pecks, or exactly 2 pecks a day each. I must own that the contraction which I have rendered 'peck' is nowhere given in extended form; the manuscript always gives *p̃. m̃i.*, which I take to read '*peciatum minae*', or *mitae*, or possibly *modi*. This calculation is borne out by many other instances, so it may be safely assumed that the measures in use were:

$6\frac{1}{2}$ pecks = 1 bushel.
8 bushels (52 pecks) = 1 quarter.

On the 30th September, 14 pecks are mentioned as the week's allowance of bran and beans for two horses. The usual allowance for each horse was a peck of oats a day, though they sometimes had $1\frac{1}{2}$ or 2 pecks, probably when in hard work; the stotts generally got 2 pecks a day each. John Camoys's palfrey got 2 pecks a day, as also did his somer; it is worth noting that apparently he sent on his luggage on the somer a day before he himself started on a journey. The heavy *dextrarius* always got 2 pecks a day.

VI.—*Silver in Roman and Earlier Times: I. Pre-historic and Proto-historic Times.* *By* W. Gowland, *Esq., A.R.S.M., F.R.S., F.S.A., Emeritus Professor of Metallurgy in the Royal School of Mines, London.*

Read 30th May 1918.

Silver in comparison with gold is of rare occurrence in nature in the metallic state. It is not found in the sands and gravels of rivers, but has to be sought for in mountain regions, where it is embedded in mineral veins. In these veins, too, it rarely occurs at the surface, like copper in the Lake Superior district of America, or in the outcrops of veins, as there, where it may once have been present as metal, it has usually been converted into chloride, by the traces of chlorine as sodium chloride invariably present in rain. Its occurrence is hence limited to the deeper deposits, where the ores are but little altered, and even there it is almost always in the form of delicate filaments or thin leaves, and very rarely massive, so that, without being first melted, it could not be fashioned into the simplest objects. An exception to its occurrence in these forms is found in the Kongsberg mines in Norway, where large masses, ranging in weight from 68 lb. to 1,537 lb. avoir., have been taken from the underground workings. For the above reasons silver has played no part in the culture of early man, and indeed it has never been found, as we shall see later, in association with his remains until subsequent to the time when he had first become acquainted with copper or bronze.

The ores from which the metal was first obtained were undoubtedly either ordinary lead ores, in which it is always present, or silver ores associated with lead ores.

In the absence of lead, the silver could not be easily extracted by any process until comparatively recent times, and although there is evidence that the Romans were acquainted with true silver ores, yet, in order to obtain the metal, they were compelled to mix them with lead ores before smelting.[1]

The first and essential process, then, for the extraction of silver was that of smelting ores for lead, the product being always the latter metal containing the former dissolved in it in greater or less proportions. Therefore, it follows that the metal lead must have been known to man at least a short time before he became acquainted with silver.

[1] Pliny, xxxiii, cap. 31.

The chief ore of lead, galena, which always contains silver, is of very common occurrence, and in many localities is found in vast, almost inexhaustible, deposits, which, as the remains of ancient excavations show, once cropped out at the surface of the ground.

The ore, too, is of brilliant metallic appearance and of high specific gravity, characters which cannot have failed to excite the curiosity of primitive man. Its great brittleness, however, would render it worthless to him for any practical use, but if, as the late Dr. Percy has remarked, 'he were to throw it on his blazing wood fire, even he could hardly fail to observe the remarkable change it might thereby undergo. The hard brittle ore might in a greater or less degree be transformed as though by magic into soft malleable lead.'[1]

I think there can be no doubt that the discovery of the metal arose in this way and that the first silver-lead smelting furnace was the domestic fire.

This discovery must have very closely followed, if indeed it was not simultaneous with, the discovery of lead, for, if by chance a piece of lead was left in the camp fire for some time, the lead would be entirely dissipated, owing to oxidation and volatilization, and a small piece of silver would be left.

The indirect method by which alone the metal could be extracted from argentiferous lead ores must, however, have been a serious hindrance to its early production and may have delayed its discovery by primitive man until some time after he had become acquainted with lead. In the case of copper, the metal could be obtained from its ores at once by the single operation of smelting, but silver could only be first extracted in the form of argentiferous lead, from which it had to be separated by a second and tedious operation. There was, too, a further difficulty in the very small amounts of the precious metal which were present in the lead. In Britain this probably did not exceed 0·06 per cent. (about 20 oz. per ton), while in the very richest galenas, an example of which is afforded by a mine in the Karahissar district of Asia Minor, the amount only reaches 1·84 per cent. (about 600 oz. per ton). Ore of the latter richness is, however, of extreme rarity, and the amount of silver present in the majority of argentiferous lead ores is very seldom even as much as 0·15 per cent. (about 50 oz. per ton). It is hence clearly apparent what a large amount of lead has to be removed before the silver can be obtained.

On the other hand, it is just possible, but extremely improbable, that a lump of kerargyrite (silver chloride), an ore of occasional occurrence in the outcrops of veins, might have been treated by Bronze Age man in the same way in which he was accustomed to smelt copper ores, or it might, by chance, have been embedded in his domestic fire; in either case he would undoubtedly have

[1] Percy, *The Metallurgy of Lead*, 213.

obtained metallic silver in one operation, as silver chloride is readily reduced by charcoal.

Of course, the discovery of the metal in the native state may have come first, as there are reasons for believing may have been the case in Spain, but it is only with the discovery of lead that the history of silver really begins.

Before proceeding further, it will be useful to consider the conditions bearing on the conversion of silver objects and native silver into silver chloride.

Silver objects which have been buried in the earth for a long period of time are almost always coated with a white or greyish crust of varying thickness. In some cases no unchanged metal, or only a thin core, remains, and although the original form of the objects may be more or less completely retained, others have lost all form and become shapeless masses. The substance into which the metal has been converted is silver chloride, and its formation is the result of the prolonged action of soluble chlorides, chiefly of sodium chloride in the presence of the oxygen of the air.

The source of the sodium chloride is not far to seek, as it is present in all rain, being in largest amounts in maritime regions, more especially during storms, when the spray from the sea may be carried to great heights in the atmosphere and descends in the rain.

Further, it has been shown recently that 'freshly collected rain-water or dew always contains a mixture of nitrites and nitrates'.[1] Now, as these substances have the effect of accelerating the action of sodium chloride on silver, it is rather surprising that any silver object buried in the ground, unless protected by a layer of clay or otherwise, should have escaped conversion into chloride.

In the following table are given the results of a series of determinations of the amount of sodium chloride in rain by Professor E. Kinch in the laboratories of the Royal Agricultural College, Cirencester:

Sodium Chloride (common Salt) in Rain, Cirencester.

| *Periods of six months ending* | *Rainfall in Inches.* | *Sodium Chloride. Grains per Gallon.* | *Sodium Chloride. Pounds per Acre.* |
|---|---|---|---|
| 1887, March 31 | 15·62 | 1·106 | 55·83 |
| „ September 30 | 9·51 | 0·3104 | 9·53 |
| 1888, March | 13·06 | 0·4142 | 17·48 |
| „ September | 14·78 | 0·3346 | 15·97 |
| 1889, March | 15·13 | 0·3922 | 19·17 |
| „ September | 15·52 | 0·24 | 12·03 |
| 1892, March | 17·38 | 0·404 | 22·69 |
| „ September | 13·73 | 0·242 | 10·74 |
| 1893, March | 11·80 | 0·333 | 12·70 |
| „ September | 8·35 | 0·4005 | 10·80 |

[1] Paper by Professor B. Moore, Royal Society, 13th December 1917.

At Florence the amount of chlorine ranged from 0·168 to 24·177 mg. per litre (0·118 to 16·92 grains per gallon), whilst at Antignana near Leghorn it reached the high figure of 21·106 grm. per litre (81·739 grains per gallon), i.e. 270 pounds of sodium chloride were deposited per acre for each inch of rain.

The extraordinary extent to which this conversion of the metal silver into chloride can be effected, even during historical times, is forcibly illustrated by the find of Roman denarii at Hengistbury Head, many of which have been completely transformed into shapeless masses of chloride.[1]

The complete conversion of the metal into chloride in the comparatively short period of seventeen centuries was partly due to the thinness of the coins, but chiefly to the large amount of sodium chloride which would be found in the soil where they were buried, in proximity to the sea.

As silver is so readily converted into chloride, under the conditions mentioned above, that only a whitish or greyish mass may remain after long burial, not necessarily retaining the original form of the object, it is not impossible that some may have been overlooked by excavators unless specially sought for. Hence the absence of objects of silver in the early part of the Bronze Age does not prove with absolute certainty that the metal was unknown to the men of that remote period.

I propose to consider first the occurrence of silver in the remains of the primitive races in Europe and Britain during their stages of Bronze and Early Iron Age culture, although the metal was known and in extensive use among the peoples of the Eastern Mediterranean regions and of Western Asia in much earlier times.

On the influence of those peoples the advance in civilization of the inhabitants of North and Western Europe was dependent, and the introduction of the use of silver, in fact the diffusion of the metals, except gold, had the same origin.

Silver has not been found, to my knowledge, with any of the remains of man in the Palaeolithic stage of culture, neither was it known in the Neolithic stage, although in the chambered tumuli of the latter gold is of occasional occurrence. In Europe it is not until we reach the Bronze Age that we meet with any even of the simplest objects of the metal, and indeed in the earlier part of the Iron Age its occurrence is rare.

Silver objects are still rare in Europe north of the Alps in the epoch of La Tène, except in certain districts which possessed argentiferous ores, notably Hungary, Bosnia, Transylvania, and certain regions of the Alps. In these districts a great number of silver fibulae has been found; several are of large dimensions, but they are not of earlier date than La Tène II (Déchelette). To

[1] Bushe-Fox, *Excavations at Hengistbury Head*, 25, 75.

the La Tène period the few silver objects obtained from the Lake-dwellings have also been referred. When we reach Roman times, objects of Greek and Roman art and of native production, with barbaric copies of classical ornament or designs, are not uncommon even as far north as Scandinavia.

Before proceeding to the consideration of the occurrence and uses of the metal in the chief divisions of the ancient world, I will cite briefly the discoveries which have been made in some rather isolated localities in Europe.

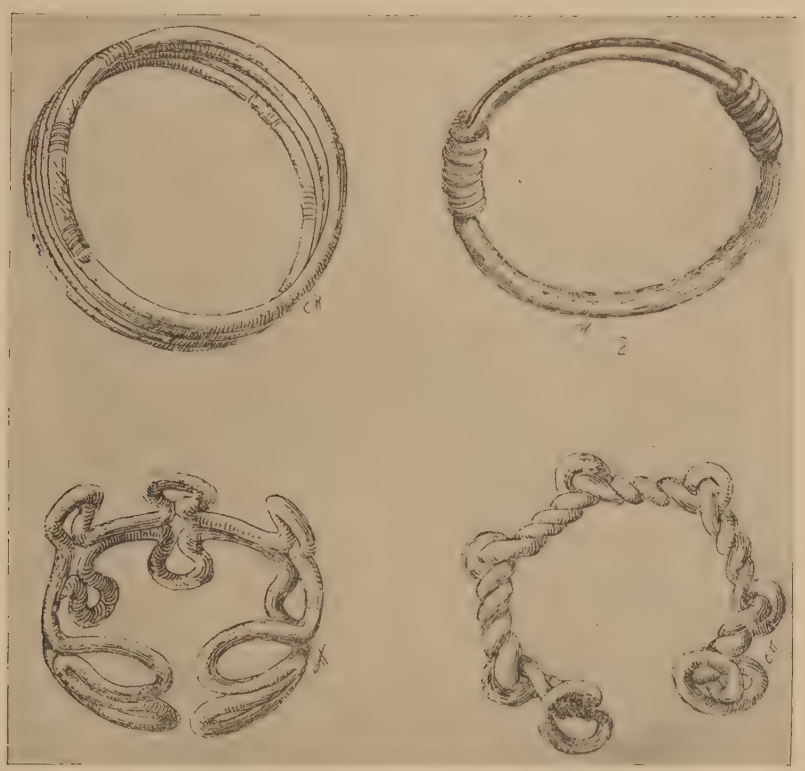


Fig. 1. Silver bracelets, Ornavasso, North Italy.

In the remains found in the cemetery of Remedello Sotto, in the province of Brescia, which have been attributed to the Eneolithic period of culture (the period in which stone had only in part given way to metal as a material for making implements and weapons), ornaments of metal, even of copper, are rare, yet they include a long pin of silver.[1] This pin is about 7 in. in length, T-headed, its head being nearly 2 in. long. It is of finer workmanship than any of the other metal objects, and was in all probability not indigenous work

[1] Peet, *The Stone and Bronze Ages in Italy*, 263.

but had been introduced from abroad. It is placed by Montelius among objects to which he gives the date 2100–1950 B. C.[1]

In the neighbourhood of Lago Maggiore, to the north of the Lepontine Alps, were two important Gaulish settlements during the La Tène period, Ornavasso in the Italian province of Novara, and Giubiasco in the Swiss canton Tessin. In the two cemeteries of Ornavasso which have been explored, one of La Tène II, the other of La Tène III, and the first century of our era, silver bracelets (fig. 1),[2] rings, fibulae, and other ornaments were found in considerable numbers, also some small silver cups. Most of the objects are of La Tène III, although some from their archaic form may be of La Tène II.

At Giubiasco similar small ornaments have been taken from the cemetery. Typical specimens of these from the graves nos. 87, 88, and 254, which I examined in the museum at Zurich, are all of the La Tène III period.

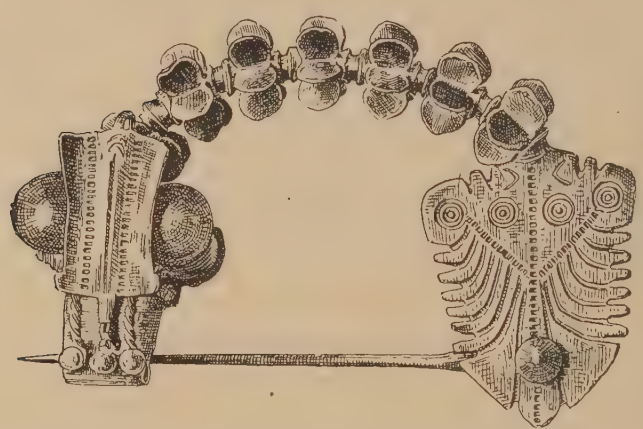


Fig. 2. Silver fibula. Strbci, Bosnia.
(From Déchelette, *Manuel d'Archéologie*; by permission of M. Auguste Picard.)

Silver fibulae, rings, and other ornaments of La Tène II also occurred in many of the graves explored in the cemetery of Jezerin in the north-west corner of Bosnia.

An important find of silver articles of the La Tène period has also been made at Strbci, another locality in Bosnia. They were contained in a cup of bronze and comprised six large and two small fibulae and other objects of silver. The former, one of which, shown in fig. 2,[3] is of complicated form, are more or less free imitations of classic models.

At Munsingen, Canton Berne, Switzerland, we have one of the most important localities in Europe for silver and gold articles of the La Tène period. Finger rings are particularly abundant. According to Déchelette,[4] the graves of the cemetery, of which over 200 were opened, have yielded a greater number of these rings than the whole of the other burials of that epoch elsewhere. But many fibulae, bracelets, and torcs were also found, some of La Tène I and others of a somewhat later type.

The site of the Hradischt, or stronghold of Stradonic, situated about twenty

[1] Montelius, *Journal of the Anthropological Institute*, xxxi, pl. xv.
[2] Déchelette, *Manuel d'Archéologie*, ii, 1094.
[3] Déchelette, *op. cit.*, 1348.
[4] Déchelette, *op. cit.*, 1265.

miles south-east of Prague, has yielded a very great number of fibulae, finger rings, and other small ornaments of silver, also numerous Gallic coins, none of which, however, appears to be older than La Tène III.

Here I may again state that all the localities mentioned above, where silver objects have been found, are in the immediate neighbourhood of mineral districts containing argentiferous ores or not far distant from them.

*Britain.* No object of silver undoubtedly belonging to the Bronze Age has yet, so far as I have been able to ascertain, been found in Britain.

Thurnam, in his account of the round barrows which he explored in Wiltshire and the adjoining counties, states:[1] 'Ornaments of gold were found in seven of the Wiltshire tumuli, in four with unburnt and in three with burnt bodies. In most of these there were several objects of the precious metal, and altogether nineteen golden ornaments or sets of ornaments may be enumerated.' No silver or leaden ornaments or objects were found, yet these tumuli are of the Bronze Age, when it might be reasonably expected that, as ores of lead containing silver were so abundant in this country, Bronze Age man would certainly have known and utilized these metals, more especially lead, as this metal is so much more easily extracted from its ores than copper.

In burials of the Early Iron Age gold is still met with, but silver is rarely if ever found. No remains of the furnaces of the earliest times have been found in Britain. Those employed for smelting lead ores in the Late Celtic period, from which alone silver could be obtained, have been quaintly described by Pennant.[2] 'The ruder Britons, before their conquest by the Romans, had a very simple process. They placed the ore in a hole in the ground and mixed it with wood, which, being fired, proved sufficient to melt the lead out of the soft and kindly ores of this country; a small gutter communicated with a second hole into which the metal ran from the first. These artless slag-hearths are very frequent in our country, discovered by the quantity of scoria mixed with charcoal.' The furnaces of an earlier period were doubtless of the same simple character.

*Scotland.* In Scotland, while there have been many important finds of personal ornaments and other relics of silver, some of great weight, others elaborately ornamented, the precise facts connected with the discovery of most are uncertain, but the character of the ornament, and in some cases the coins said to have been found with them, show that none is of earlier date than the Roman period and others are of Viking times.

*Gaul.* Silver is absent in Gaul in the remains of the Neolithic Age. Ornaments of gold have been found, but they are not common in the dolmens of Brittany, which have been attributed to the latter part of that period.

[1] *Archaeologia*, xliii, 524.

[2] Pennant, *A Tour in Wales*, 61.

In the Bronze Age, more especially in the earlier part, gold ornaments and jewellery, often of a massive character, appear to have been comparatively abundant, yet even up to its close silver is of rare occurrence. Further excavations may hereafter bring more examples of its use to light. At present the only evidence we have that the metal was known to the men of that age is chiefly derived from the following objects, which according to Déchelette can undoubtedly be referred to that period:[1]

(*a*) Simple silver pins with the head in the form of a loop. From a tumulus at Mouden-Bras, Commune of Pleudaniel (Côtes-du-Nord).

(*b*) A spiral ring from a tumulus at Carnoët (Finistère).

(*c*) Several rings from a 'dépôt' or hoard at Curgy (Saône-et-Loire).

(*d*) A bronze dagger with rivets of silver found at Cissac near Pauillac (Gironde).

(*e*) A kind of collar associated in the finds at St. Vallier (Alpes-Maritimes) with an object which appears to be a fragment of a halberd, with bronze spirals and various pieces of ornament.

In Finistère there are deposits of argentiferous galena which, from the number of celts of lead that have been found in that district and in Loire-Inférieure, were evidently worked in the Bronze Age. The silver in the first-named objects (*a* and *b*) could hence have been obtained from them, and it is rather surprising that, with silver-bearing ores in their neighbourhood, so few examples of the use of the metal should have been found in the tumuli.

As regards the source of the silver of the rings (*c*) and the collar (*e*), Curgy is not far distant from the mineral district of Puy-de-Dôme, and St. Vallier is equally near the ancient mines of l'Argentière (Hautes-Alpes).

The bronze dagger (*d*) is of the same type as those found by the brothers Siret at El Argar, and was probably imported from Spain.

In the Early Iron Age, the Hallstatt period, silver is still very rare, and remains so until near the end of La Tène, shortly before the incursion of the Romans.

In this connexion it may be remarked that the finds of silver recorded among the sepulchral remains of Champagne consist almost solely of inconsiderable ornaments, bracelets, and rings.

A massive torc of exceptionally beautiful workmanship of the La Tène period, weighing 336·5 grm. (about 11·9 oz. av.), was, however, found at Vallon, near Freissinières (Hautes-Alpes).[2]

Much still remains to be worked out as regards the extent to which silver was in use when the Romans entered Gaul. If the evidence afforded by classi-

[1] Déchelette, *Manuel d'Archéologie*, ii, p. 365.

[2] Chantre, *Les Nécropoles du premier Âge du Fer des Alpes Françaises*, pl. vii, fig. 6.

cal writers is to be relied on, the Gauls were much richer in silver than is demonstrated by the actual finds of objects of the metal. According to Livy, P. Cornelius Scipio, in his victorious campaign in Gallia Cisalpina against the Boii, 191 B.C., obtained as booty the almost incredible amount of 2,340 pounds of silver vases of Gallic manufacture.[1]

Strabo states that the Ruteni and Gabales in Aquitania possessed productive silver mines.[2] In support of Strabo's statement, I may say that near Vialas (Dép. Lozère) and at one or two places in the same department and in Gard, in the regions occupied by the Ruteni and Gabales, there are ancient workings of considerable extent, and here litharge and by-products of the separation of silver from lead, as well as slags, have been found.

In addition to the ordinary uses of the metal, the Gauls were acquainted with and practised the art of silvering bronze, and although only a few examples have been found, we have the testimony of Pliny[3] that the people of Alesia made use of the process for plating ornaments for horses, yokes of oxen, and also for carriages and chariots.

The historian Florus mentions the silver chariot which carried Bituitus, king of the Arverni, when he fought the Romans in 121 B.C., and in which he appeared in Rome at the triumph of his conqueror, the consul Q. Fabius Maximus.[4] This was doubtless not of solid silver, but of plated wood and silvered bronze. The rich silver-lead mines of Pontgibaud, however, are situated in the country of the Arverni and must have yielded them considerable amounts of the precious metal.

In Scandinavia, where in the Kongsberg mine the largest deposits of native silver in Europe have been found, it might naturally be expected that silver objects would have been discovered in the remains of an early period, yet none occurs until the later Iron Age, about the first century of our era, and these have had their origin in metal from Gaul or southern Europe.

One of the most remarkable silver objects found in Scandinavia is a large cauldron,[5] of which a brief description may be inserted here. Though it is of Roman times, yet it is most probably of Gallic origin and is the most extraordinary silver vessel of barbaric ornamentation that has been found in Europe. It was discovered in a peat bog near Gundestrup in the neighbourhood of Aars on the north-west of Hobro in Jutland. The cauldron is ornamented both inside and outside with numerous figures in repoussée work, many of which are copies of classical subjects rudely executed. Another element in the designs is certainly Gallo-Roman; for instance, the frequent recurrence of the snake with a ram's head, and the male figure sitting with crossed legs, an antler on his

[1] Livy, xxxvi, 40. [2] Strabo, iv, c. ii, 2 [3] Pliny, xxxiv, 48.
[4] Florus, iii, 2. [5] Sophus Müller, *Nordische Altertumskunde*, vol. ii, pl. 1, 160.

head, and holding in one hand a large ring and in the other a snake, all of which are attributes of the Gaulish god Cernunnos. The cauldron is not in one piece, but is constructed of plates fastened together by silver bands soldered to them. It weighs 8,885 grm. (19·58 lb. avoir.), and from its nature, costliness, and decoration Dr. Sophus Müller concludes that it was made for use in religious ceremonies and was deposited in the peat bog as a votive offering to the gods.

As regards its age the cauldron is attributed to the Roman period of Denmark.

*Spain.* The northern border of the valley of the Baetis, but especially the mountain district between its eastern side and the sea, and notably the Sierra Almagrera, was the most highly mineralized region of the world, and was unequalled in its production of lead and silver by any other region in ancient times.

Owing to the occurrence of native silver, and probably of the easily reduced silver ore kerargyrite (silver chloride) in the outcrop of some of the veins, and its extraordinary richness in argentiferous galena, the metal was known to the natives and in use by them at a very remote period, long before the Phoenicians or even the Aegeans had reached the country. The explorations of MM. Siret have demonstrated that silver was even in use when implements of metal had only partially replaced those of stone.

The outcrops of the veins at the foot of the Sierra Almagrera near Herrerias in the Carthagena district, in which there is strong evidence to show that native silver occurred, were doubtless the source from whence they obtained the metal in that primitive stage of culture. I may say that native silver is reported by MM. Siret to have been found at the foot of the Sierra,[1] and at El Argar a sample of galena was rich in silver, containing nearly 1 per cent. (about 320 ounces per ton).[2]

In the tombs at El Argar of the beginning of the Bronze Age MM. Siret unearthed a large number of objects of copper, of bronze poor in tin, and of silver comprising flat celts, daggers of bronze, one with silver rivets, and one of silver, also halberds, two diadems of silver of simple form, and other silver personal ornaments. Of these various objects, some appear already in the Eneolithic Age, and, in many, Aegean influence is undoubtedly evident.

The silver objects found, chiefly bracelets, rings, and pendants, were 310 in number and weighed 1,500 grm. (about 53 oz. av.).[3]

One of the bracelets which was analysed gave the following results:

Silver, 92·64;
Copper, 5·82;
Chlorine, 1·00.

[1] Henri et Louis Siret. *Les premiers Âges du Métal dans le Sud-Est de l'Espagne*, 231.
[2] *Ibid.*, 232. [3] *Ibid.*, 232.

Now native silver has been found to contain up to 10 per cent. of copper, and as no lead is present we may certainly infer that it was made of the native metal.

M. L. Siret is inclined to establish by archaeological evidence the presence of the Phoenicians in Spain even in the Neolithic period, but in the opinion of Déchelette this cannot be accepted, as, before the foundation of the town of Gades, there can be no question of Phoenician sea-power in the western Mediterranean, the Aegeans having had command of the sea in the previous centuries.

History does not record any intercourse between the Aegeans and Spain, but it is beyond doubt that they were seafaring peoples and voyaged in the Mediterranean before the Phoenicians; and that they may have reached the silver-bearing districts on the south-east as early as the Eneolithic period, we have the evidence afforded by the excavations of MM. Siret at Millares, and in the Bronze Age at El Argar.

In the chambered tumuli at the former place these explorers discovered some earthen cups ornamented in incised work with a pair of symbolic eyes undoubtedly indicating Aegean influence.[1]

From the foundation of Gades (1100 B.C.) until they were displaced by the Carthaginians and the Greeks, the Phoenicians had continuous intercourse with the argentiferous districts of Spain. 'They probably penetrated but a short distance inland, and, so far as we know at present, their presence on the fringe of a small stretch, the south-eastern part of the Peninsula, left no trace in the inhabitants, or in the country itself.'[2] They were essentially traders and merchants, and although it is recorded that they owned the mines in the islands of Thasos,[3] there is no evidence that the Iberian mines were ever worked by them.

The well-known tale of Aristotle[4] that the first Phoenician ships received so much silver for worthless wares that they left behind their anchors and chains, having replaced them with those of silver, is open to serious doubt for metallurgical and technical reasons. Any object made of silver must be cast, and there is no evidence that it was possible at this remote time to make a casting of the metal of the weight of the anchors required for the far voyaging ships of the period.

A more reasonable and trustworthy version of the tale is given by Diodorus.[5] After stating that the merchants bought silver by exchange of very small quantities of other articles, he says 'that the eagerness for the extraordinary

[1] Déchelette, *Manuel d'Archéologie*, i, 601.
[2] Horace Sandars, *Archaeologia*, lxiv, 206.
[3] Herodotus, vi, 47.
[4] Aristotle, Περὶ Θαυμασίων Ἀκουσμάτων, cxxxv.
[5] Diodorus, v, 35.

profits which they obtained by this barter was so great that when the cargo of their vessels had been completed and still some silver remained they cut off the lead which was attached to the anchors and substituted ingots of silver to serve the same purpose'.

After the fall of Tyre, in the 6th century B. C., the Phoenician trading stations passed into the hands of the people of Carthage, and in the same century the Greeks established settlements in the north-east and east of Spain. There is no certain evidence, however, that the silver mines were worked by either of these peoples, although 'the Carthaginians penetrated to the mining district on the northern confines of the valley of the Baetis, where they in all probability worked the mines'.[1] But with the advent of the Romans in the third century and their subsequent conquests the mines passed into their possession and were exploited by them on a very extensive scale until the fall of the Empire.

During the whole of the period from the beginning of Phoenician intercourse up to the early centuries of our era Spain had been one of the chief sources of silver to the Ancient World.

The nations or peoples whose uses of silver will now be considered had reached at a very remote period a higher stage of civilization than the races already dealt with. In the case of some we have in fact to go back to a time long anterior to that of Bronze Age man in Europe.

In a rude and primitive age the metallurgist and the worker in metals are solely occupied in the making of weapons and implements for war, the chase, and the simplest operations of agriculture, for none of which silver was as suitable as bronze, even had it been abundant. In the Early Iron Age the scope of their work still does not extend beyond the production of personal ornaments. But as civilization advanced, while the fabrication of arms and appliances of war is not neglected, their skill takes a wider range and they become the artificers of silver vases, cups, and other luxurious appurtenances of domestic and ceremonial life of which so many noteworthy specimens have been unearthed.

*Chaldaea.* The earliest mention of the metal silver that I have been able to find is contained in an inscription on a granite obelisk discovered by M. de Morgan at Susa.[2] The monument is a boundary-stone on which are engraved the title-deeds of an extensive property purchased by Manishtusu, king of the city of Kish. On the grounds of the writing and contents of the inscription, it has been assigned to an age as remote as 4500 B. C.

[1] Sandars, *Archaeologia*, lix, 313.
[2] Letter of Mr. St. Chad Boscawen, *The Times*, 29th January 1901.

Records of the area and purchase price of the land and of the value of the slaves, asses, and various material bought with it are given in detail. As regards metal articles there is the following statement:

6 bronze khagi,
4 „ wedges,
3 „ cleavers.

Price per instrument 5 shekels silver.
Their value 1 mana 5 shekels.

In all the values given there is a regular silver tariff of the talent, mana, and shekel arranged according to a sexagesimal scale. The obelisk thus affords, in this use of silver as a monetary standard, conclusive evidence of the vast antiquity of the civilization of the early Babylonian states.

Of the same period is a silver vase dedicated as a votive offering to Ningirsu by Entemena the Sumerian king of Lagash, which was found by De Sarzec in his excavations at Tello and is now in the Louvre. The vase stands on a small bronze pedestal. A piously worded inscription runs round the neck, and the body is divided horizontally into two divisions enclosed by twisted cord work. In the lower division is a row of four eagles, representations of Imgig, the lion-headed eagle of Ningirsu, in the act of seizing animals with their claws, 'a representation which served as the heraldic cognizance of Lagash'.[1] In the upper division are dispersed seven heifers lying down.

The excavations of Andrae and Noeldeke on the site of the ancient Shuruppak at Fãra carry still farther back the history of the Sumerians as a metal-using people acquainted with silver.

Silver finger rings, together with arm rings, and copper spear-heads, axes, and blades of daggers with rivets, were found in the earliest graves. The sources of the silver and copper were in all probability the ores of these metals in Carmania (Laristan), or the copper may have been obtained from the Sinaitic deposits and the silver from the Tiyari mountains, Amidu (Diarbekr), or probably the Taurus.

Additional evidence of great importance of the remarkable antiquity of the civilization of this region has been recently afforded by the carved ivory handle of a flint knife stated to have been found at Gebel el-Arak opposite Nag Hamadi, Egypt. It has been described by M. Bénédite, of the Louvre Museum, in the *Monuments et Mémoires* of the Académie des Inscriptions (tom. xxii, fasc. 1). An abstract by Professor Flinders Petrie appears in *Ancient Egypt*, 1917, part i, p. 26 et seq. The designs represent fighting men, ships, and hunting scenes. According to Petrie, 'The art is not Egyptian.

[1] Hall, *The Ancient History of the Near East*, 182.

The general style of the fighting groups reminds one of more than one monument of early Mesopotamia. Above all, the figure of the hero with lions is a purely Mesopotamian or Elamite type.' It is evident, therefore, that the advance of civilization may have been earlier on the Tigris than on the Nile (Petrie).

Of a somewhat later but still an early date is the inscription on a statue of Gudea which was unearthed at Tello by De Sarzec. It contains a very valuable passage relating to silver and other metals. Here the king, speaking of his statue, says: 'Of this statue, neither in silver, nor in copper, nor in tin, nor in bronze, let any one undertake the execution' (Boscawen). The approximate date attributed to the reign of this monarch is 2,500 B. C. It would hence appear that at this time silver was sufficiently plentiful to be used for casting statues, although these may probably have been only of small size.

About the same period there is a considerable number of documentary clay tablets in the British Museum[1] ranging from the time of Dungi, king of Ur (*c.* 2400 B. C.), to Ammi-zaduga, king of Babylon (1977–1957 B. C.), referring to sales of houses, land, and slaves, in which silver in manehs and shekels appears as the medium of exchange. Yet notwithstanding these records, and many others extending to the captivity of Babylon by Cyrus (539 B. C.), no ingots or pieces of silver which could have been used as currency have been found either in Babylon or Assyria. Neither have any silver or gold vessels, except the silver Entemena vase, been obtained in any of the numerous excavations. This is strange, as we may well believe that the Babylonian and Assyrian kings by their conquests had accumulated vast stores of these treasures as spoils of war. A confirmation of this, if such is needed, is afforded by a black alabaster monolith which was set up by Shalmaneser II (860–825 B. C.), at Nimrud, and is now in the British Museum.[2] It is inscribed on the four sides with an account of his victories and of the silver and gold and vessels of gold received as tribute from the kings whom he had conquered. Silver is placed first in the lists of metals in the booty, and is followed by gold, lead, and copper. No tomb, however, has yet been discovered that by its size, richness, or isolation can be regarded as the burial-place of royalty, yet the sovereigns of Mesopotamia must have had something analogous to the vast and magnificent sepulchres of the Egyptian kings.

As the country is simply an alluvial plain, and sun-dried bricks alone were available for constructive purposes, it is extremely probable that the royal tombs may have been built of this material, and hence did not afford that protection for their contents which we find in Egypt and Mycenae. They were, therefore, easily

[1] *Guide to the Babylonian and Assyrian Room, British Museum*, pp. 131 and 142 et seq.

[2] *Op. cit.*, p. 24.

destroyed. That their destruction and spoliation were most remorselessly and completely carried out we have the evidence of an inscription of Ashurbanipal (668–626 B.C.), in which, speaking of his campaign against Susiana, he says, 'the tombs of both their ancient and modern kings I threw them down and demolished them and carried away their corpses into Assyria.'

As regards the relative value of silver and gold, I have already mentioned that in the tribute lists *c.* 900–800 B.C. silver precedes gold; but in the time of Sennacherib, 705 to 681 B.C., the order is reversed and gold precedes silver.

An inscription found at Khorsabad, to which the date 708 B.C. has been attributed, gives the ratio of 1 gold to $13\frac{1}{3}$ silver.

*Egypt.* In Egypt there is a marked absence of silver in the earliest times. It does not appear to have come into use until the beginning of the second prehistoric civilization, when it was used for a cap of a jar, a spoon, and other small objects (Petrie).

It is still rare in the Twelfth Dynasty (2466–2266 B.C.). Only a few silver objects have been found, the chief of which are a necklace of beads and the royal hornet with inlaid wings and pieces of pectorals from Harageh.

As there are no silver mines in the country the metal had to be obtained from abroad, but this does not satisfactorily account for its scarcity during this dynasty if we may accept Elliot Smith's[1] statement that 'early in the third millennium B.C., fleets of Egyptian ships were trading in foreign parts' and 'there is evidence to show that an intimate intercourse had sprung up between Egypt and Palestine before the end of the Third Dynasty (3733 B.C.)'. Nor must it be overlooked, as we have already seen, that there was intercourse with a silver-using people in the Mesopotamian region in even earlier times.

At Hissarlik, as we shall see later, silver vases were in use as early as 2500–2000 B.C., and at Mycenae *c.* 1600-1500 there were skilful workers in the metal. Hence it is extremely strange that so few silver objects have been found in Egypt.

In the Eighteenth Dynasty (1650-1400 B.C.) silver appears still to have been rarer than gold, if the order in which these metals are mentioned in the lists of the offerings to temples may be accepted as evidence. A characteristic example of these lists is the inscription on the stele of Neb-ona, chief prophet of Osiris in the reign of Thothmes III. It runs thus: 'I have consecrated numerous gifts in the temple of my father Osiris; in silver, in gold, in lapis-lazuli, in copper, and in all kinds of precious stones.'[2] A silver ring of Amen-hetep IV (1430 B.C.), in the British Museum, a group of hollow silver bangles found by Petrie at Querneh in a grave under the store-rooms of Seti I (1366 B.C.), and a few

[1] G. Elliot Smith, *The Ancient Egyptians*, 98. [2] Mariette, *Notice . . . . du Musée*, no. 93.

other small articles comprise the whole of the objects of silver of the Eighteenth and Nineteenth Dynasties; yet there is no lack of gold.

On the other hand, inscriptions of the reign of Thothmes III state that amongst the offerings to Amen, the chief deity of Thebes, were 562 talents of silver. Also a great quantity of silver vases are recorded in the papyrus of Rameses III. Further, according to Petrie, 'the totals given to the various gods by Rameses III during his reign must show fairly the relative amounts of the precious metals in use. It is not quite clear how far totals recapitulate, but the totals offered to the various gods amount to 9 cwt. of gold and 30 cwt. of silver, the grand totals named later are 20 cwt. of gold and 33 cwt. of silver.'[1] Hence we may conclude that silver was not scarce, but abundant, during the reign of that monarch (1200 B.C.).

Before the end of the Eighteenth Dynasty, with the rise of the sea-power of the Minoan and the Aegean peoples, followed by Phoenician intercourse with Spain, Egypt must have been in a position to acquire large amounts of silver.

In the course of centuries, however, by external trade and as spoils of war, silver had accumulated to an extraordinary extent, if the accounts of the destruction of Thebes by Cambyses (526 B.C.) are only approximately true, when it is said that an almost fabulous amount of the metal, exceeding 60 tons in weight, was taken out of the rubbish. I may add that some silver was also obtained by treating electrum, a native gold-silver alloy, by a cementation process.

As is well known, all native gold contains silver. If sufficient was present to produce a paleness of colour, the metal was termed *asem* by the Egyptians, and *electrum* by the Greeks. Specimens of gold leaf from mummies of the Sixth Dynasty, analysed by Berthelot, were found to contain from 3·2 to 4·5 per cent. of silver. The golden foil taken by Schliemann from one of the royal tombs at Mycenae, which was analysed in Dr. Percy's laboratory at the Royal School of Mines, contained 23·37 per cent., while in a rod of electrum from Ilios, analysed by Roberts-Austen, the large amount of 33·4 per cent. was present.

That the Egyptians separated silver from gold at the Nubian mines by a process of cementation we have the evidence of Agatharchides (second century B.C.), as given by Diodorus.[2] The process was undoubtedly carried on by them in the sixth century B.C. and probably in somewhat earlier times.

The description of the process by Agatharchides is undoubtedly obscure and wanting in accuracy, although its general meaning is quite clear, and in this connexion it must be borne in mind that it is an account of an extremely technical process by a writer who had no technical knowledge, and is not more inaccurate than some accounts in our own times by non-technical men of subjects of a similar character.

[1] Petrie, *Ancient Egypt*, 1915, p. 16.

[2] Diodorus, iii, 14.

His description is as follows: 'The gold in the form of granules, together with various proportions of (lead ?), salt, and barley bran, was placed in a porous earthen vessel and the cover luted on with clay. The vessel was then placed in a furnace and heated continuously for five days and five nights. After this treatment the gold was left perfectly pure.' Unfortunately no account is given of the method followed for the recovery of the silver.

Fig. 3. Charging the furnace. Japan.

This ancient process for separating silver from gold by means of common salt I found in use in Japan in 1872. The operations as conducted there, which I will briefly describe, throw considerable light on the mode of procedure followed at the Egyptian mines (figs. 3 and 4).

The gold was first reduced to a coarse powder by heating it to near its melting-point, and rubbing on an iron plate with a stone or iron rubber. The coarsely powdered gold was mixed with common salt and a certain proportion of clay, and piled up in the form of a cone on an earthen dish. The whole was

then placed in a furnace containing charcoal as fuel and was kept at a red heat, insufficient to melt the gold, for at least twelve hours, by which means the silver was converted into chloride, which was absorbed by the clay. The dish with its contents was then removed and the gold separated by washing with water. The silver was extracted from the residue by smelting with litharge in a simple furnace.

Fig. 4. Removal of the charge after treatment.

*Ilios.* In the Troad the excavations of Schliemann have brought to light the earliest examples of the use of silver in the eastern Mediterranean region. They consist of a silver pin, an earring, and a piece of wire, which were found at Hissarlik in the stratum representing the lowest city, to which the date 3000 to 2500 B.C. has been assigned by Tsountas and Manatt.

In a higher stratum containing the remains of the second city (2500 to 2000 B.C.), the prehistoric fortress of Dörpfeld, there was quite a wealth of silver vessels and objects comprising eleven vases, goblets, jugs, etc., six silver bars, some personal ornaments, as well as crucibles in which gold and silver had been

melted. Several of the vases and goblets are of graceful forms and delicate workmanship, indicating remarkable technical skill in the working of the metal.

The silver bars (fig. 5)[1] differ in size, but their weight only varies from 6 oz. to 6·1 oz. They are of even greater interest than the other silver objects, as they most probably represent a system of currency in use in Hissarlik of a similar character to that of the small stamped pellets of the Minoans (1600–1350 B.C.) (see p. 141). One of the bars was analysed by Roberts-Austen, and its composition is given in the following table, in which is inserted for comparison the analysis of a Roman *patera* in the British Museum:

| | *Silver.* | *Copper.* | *Gold.* | *Iron.* | *Lead.* | *Analyst.* |
|---|---|---|---|---|---|---|
| Silver Bar | 95·61 | 3·41 | 0·17 | 0·38 | 0·22 | Roberts-Austen |
| Roman Patera | 95·15 | 3·44 | 0·47 | 0·07 | 0·33 | Gowland |

Now Roman silver was undoubtedly obtained from argentiferous lead by cupellation, and, as the bar from Hissarlik is practically identical in composition with it, it is reasonable to assume that the silver of which it consists was the result of the same process.

Fig. 5. Silver bars from Hissarlik (Second City).
(From Schliemann, *Ilios*, by permission of Mr. John Murray.)

The sources whence the people of the prehistoric towns Hissarlik and Lamunia could obtain the metal were not far distant, in fact they lay at their very doors. In the mountain districts to the north-east of Mt. Ida in Mysia, and at various points on the range of which Mt. Olympus forms the prominent peak on the frontiers of Mysia and Bithynia, there are considerable deposits of argentiferous galena and many remains of ancient surface mining. As silver-lead mining was undoubtedly carried on in Pontus at a very remote period, we may not unreasonably presume that some of these remains may be of Hissarlik times and furnished the silver.

It may be mentioned in this connexion that the sites of several of the ancient workings for ore in this district have been exploited in recent years, notably at Hodsha Germish (Balia), to the north-east of Mt. Ida, and at Karie-Seunluk, and near Broussa, on the Olympus range, and have yielded both lead and silver. The mine at Balia, which at the present time is the most important in Asia

[1] Schliemann, *Ilios*, 470.

Minor for lead and silver, produced in 1903 7,600 tons of lead containing 63 oz. of silver per ton.

*Crete.* As regards the Minoans the comparative rarity of silver objects at Knossos is difficult to understand in view of the facts that they were specially distinguished as a seafaring people and must therefore have had communication with the silver-bearing regions near the coasts of the Aegean and of Asia Minor, and that their vessels and utensils of bronze and their work in gold testify to their skill as artificers in metal. The only explanation that seems possible is that the city was not only destroyed by fire, but was plundered before its destruction. On the other hand, objects of the metal have been found in tombs.

Fig. 6. (1) Silver cup; (2 and 3) Polychrome ware cups. Gournia, Crete.
(From Hall, *Aegean Archaeology*, by permission of Mr. Hall and the Medici Company.)

In the royal tomb of Isopata, excavated by Sir Arthur Evans,[1] which unfortunately had been previously plundered, there were found near the edge of the pit the remains of two silver cups, one nearly perfect. It is about 9·5 cm. ($3\frac{3}{4}$ in.) in diameter and is fitted with a handle attached by rivets. 'That they had been originally contained in the sepulchral cist is probable enough,' hence their date must lie in the Middle Minoan III period (1900–1700 B.C.). Silver vessels of typical Minoan form appear in the representations in the Theban tombs among the gifts borne by Cretan ambassadors to the court of Hatshepset and Thothmes III (1550 B.C.).[2] A silver ring was found by the same explorer in the tomb of the polychrome vases of the Late Minoan III period (1450–1200 B.C.), and the handle of a silver cup in the tomb of the Double Axes, Late Minoan II (1500–1450 B.C.).[3]

At Gournia a tall silver cup of kantharos shape was found in a house tomb of the Middle Minoan period, together with two clay cups (fig. 6)[4] of the same form. The silver cup is 8 cm. ($3\frac{1}{8}$ in.) high, with fluted rim and projecting handles fastened by silver and bronze rivets. The clay cups are interesting examples of the imitation of a metal form by the potter; even the rivets are represented by pellets of clay. Since this discovery a number of fine silver bowls, also of Middle Minoan date, have been unearthed at Knossos.[5]

[1] *Archaeologia*, lix, 533, 545.
[2] Hall, *Aegean Archaeology*, 58.
[3] *Archaeologia*, lxv, 24 and 45.
[4] Hall, *Aegean Archaeology*, p. 54, fig. 5.
[5] C. H. and B. Hawes, *Crete the Forerunner of Greece*, 116.

Among the epoch-making results of the excavations of Sir Arthur Evans at Knossos, not the least important is the discovery of the earliest beginnings of coinage in the world.[1] The coins, if this term is permissible, consist of small bits and drops of gold and silver that must have been in use as daily currency. One of these small dumps of silver weighing 56·4 gr. coming from a Late Minoan deposit is marked with what is either a broad H or a ⊢, the first of which is found as a mason's mark, and the second as a sign in the linear script. It had evidently been made by dropping molten silver on a surface marked with the symbol. The earliest coins of Greece and Asia Minor, many centuries later, were only similar molten dumps.

In Japan until quite recent times there were similar drops of silver, termed 'Mamme-ita-gin' in regular use for commercial and other payments. They were, however, of an irregular size and weight, were stamped on the upper surface usually with a representation of Daikoku, one of the Seven Lucky Gods, and a small portable balance of the form of a Roman balance or 'steelyard' was carried by all who had to make payments with them.

As regards the other prehistoric sites in the Aegean there is also an almost complete absence of silver, yet there were silver-bearing ores in the island of Siphnos. Moreover, the island peoples are credited with the maritime supremacy of the Mediterranean up to Phoenician times, so that the deposits of Thasos and the west coasts of Asia Minor were easily within their reach, while there is strong evidence that they had intercourse with far distant Iberia.

*Greece.* After the fall of Knossos (1400 B.C.) the predominance of Aegean civilization passed from Crete to Mycenae and the mainland, but long before that time Mycenae had been a city of wealth and importance. In the famous shaft-graves of the necropolis excavated by Schliemann, which have been referred to Late Minoan I (1700–1500 B.C.), there was no lack of silver but an extraordinary abundance of gold.

The graves were situated within a circular enclosure about 87 ft. in diameter, surrounded by a double row of limestone slabs.

In grave I a silver vase (fig. 7)[2] of imposing size, 2 ft. 6 in. in height and 1 ft. 8 in. in diameter, was found together with four silver goblets. The upper part of the large vase is ornamented with spirals in repoussée work and the lower with horizontal parallel flutings. The mouth and an encircling band are plated with copper and the copper with gold. Curiously the bottom is entirely of copper, the rim of which may have been plated with gold.

In grave III in the royal necropolis at Mycenae, in which three women and two children were interred, there was a profusion of gold ornaments, but of silver

[1] Sir Arthur Evans, *Corolla Numismatica*, Oxford, 1906.

[2] Schliemann, *Mycenae and Tiryns*, p. 316, fig. 478.

articles there were only four silver vases and goblets and two silver rods plated with gold.

In grave IV, which is apparently the earliest of the graves, lay the bodies

Fig. 7. Silver vase. Mycenae.

of five persons 'literally smothered in gold ornaments'. Of silver objects there were the famous ox-head and nineteen silver vessels.

The most important of the silver vessels is the vase[1] with the vivid siege scene, of which only a fragment remains. It was a wide-mouthed vessel having the rim plated with gold, below which is a small gold shield which may have served for a handle.

[1] Schliemann, *Mycenae and Tiryns*, 213.

The silver ox-head is a hollow casting in one piece, while the horns are shaped out of gold plate and fastened on.[1] The head is further bedecked and the features brought out by the application of gold, plated not directly on the silver but on an intermediate plating of copper.

A cup from this grave[2] is of special interest, as it is enriched with inlaid decorations of golden lotus plants in flower-pots and a ring of discs of the same metal. All these are cut out of gold-leaf and inlaid upon the silver, a method of ornamenting which occurs on another Mycenaean silver cup and on dagger-blades.

A portion of one of the vases was analysed in Dr. Percy's laboratory and found to have the following approximate composition:

| | |
|---|---|
| Silver | 95·59 |
| Gold | 0·30 |
| Copper | 3·23 |
| Lead | 0·44 |
| Iron | 0·12 |

It is of practically the same composition as the silver bars from Hissarlik and the Roman patera given on p. 139, and as the silver of the latter was undoubtedly obtained by cupellation from argentiferous lead, the Mycenaean silver was the result of the same process.

It has been asserted by a continental author that the production of silver by the cupellation of lead was unknown in Mycenaean times. But this assertion is based on imperfect data, on absence of a quantitative chemical analysis, and on a superficial acquaintance with metallurgy. He states that the silver from Mycenae was very impure because, besides gold, it contained copper and antimony. Now gold and copper are universally present in cupelled silver, and antimony is by no means uncommon in very small quantities. That antimony was not present in larger proportions than are found in cupelled silver is proved by the forms and workmanship of the Mycenaean cups and vases. A very small quantity of antimony renders silver so exceedingly brittle that if it were present in more than traces it would have been quite impossible to construct these vessels.

Further, a stag with antlers (fig. 8)[3] from grave IV, which seems to have served as a vase, was analysed by Professor Landerer and found to consist of an alloy of two-thirds silver and one-third lead, a mixed metal which had undoubtedly been taken from a cupellation hearth before the operation of cupelling had been completed, and is simply argentiferous lead imperfectly cupelled.

The rich deposits of argentiferous galena, which occur on an extensive scale

[1] Schliemann, *Mycenae and Tiryns*, 216.

[2] Tsountas and Manatt, *The Mycenaean Age*, p. 103.

[3] Schliemann, *op. cit.*, 257.

in the region of Laurion in Attica, afforded the Mycenaean people a supply of silver. These deposits in the earliest times, as is shown by the numerous superficial workings, were exposed at the surface of the ground, and I think there can be little doubt that the mines of Laurion, so famous in a later age, had been previously worked by them.

The discovery of three domed tombs, containing undoubted Mycenaean remains,[1] at Thoricos, in the mining region of Laurion, in the vicinity of many primitive superficial mining excavations, affords very strong evidence indeed in favour of this view.

At Tiryns, in marked contrast to the abundance of silver at Mycenae, Schliemann reports that of silver there was only found a simple signet-ring with a star engraved on it; yet, considering the numerous objects of this metal found in the royal tombs at Mycenae, we cannot doubt that the inhabitants of the palace at Tiryns had silver in common use.[2]

Fig. 8. Stag from grave IV. Mycenae.

When we reach the times of the *Iliad* and *Odyssey* (*c.* the 9th and 8th centuries B.C.) silver is by no means abundant in Greece.

The mines of Laurion, so famous in later times for their richness, which, as we have seen, were worked by the Mycenaeans at an early period, had probably ceased to be productive and Greece had to rely for the silver she required on importations from abroad through Phoenician traders.

Homer ascribes the home of silver to the town Alybe. The position of this place has not been definitely determined. Even classical authors are by no means agreed as to its locality. According to some it was in the land of the Chalybes in Pontus, whilst others place it in Bithynia or Mysia. It has been suggested by Movers[3] that its site should be sought for in Spain, whence the Phoenicians obtained their silver, but there is the strongest presumption in favour of the view that it lay in the Pontus region of Asia Minor.

It may be noted here that neither mining nor metallurgy is mentioned in either the *Iliad* or *Odyssey*, and when silver is spoken of it is always as finished metal or as works of art. It appears in many passages as in use for cups, goblets, and the like, and for the ornamentation of weapons, armour, and furniture, and the decoration of the walls and the pillars of the doors of palaces; but the most beautiful and highly-prized silver objects are always

[1] Staïs, Πρακτικὰ *de la Société Archéologique d'Athènes*, 1893, quoted in *Les Mines du Laurion*, par E. Ardaillon, 127.

[2] Schliemann, *Mycenae and Tiryns*, 171.

[3] Movers, *Die Phönizier*, 37.

of Sidonian or foreign origin. Thus the mixing-bowl of silver, 'the most beautiful on earth', which Ulysses offered as a prize in the foot-race at the funeral games in honour of Patroklos is said to have been 'wrought by the artificers of Sidon and brought by men of the Phoenicians over the misty sea',[1] while the silver work-basket of Helen and the two silver baths of Menelaus were gifts respectively from Alcandra the wife of Polybus of Thebes in Egypt, and from Polybus himself.[2]

I may also cite the 'beautifully wrought' silver goblet with golden rim given by Menelaus to Telemachus, which he had received as a present from Phaidimus, the king of the Sidonians.[3]

A Greek craftsman, Icmalius, however, is mentioned by Homer as being the fabricator of the silver and ivory throne of Penelope,[4] and Achilles as having himself fashioned his sleeping couch and ornamented it with inlaid work of gold, silver, and ivory.[5]

Hesiod, in speaking of the Stygian palace, states that it stands on silver pillars,[6] and in his elaborate description of the ornamentation of the shield of Hercules[7] the bodies of the warriors, the dolphins, and the tendrils of the vines are of silver, but there are very few references to silver in his works. Personal ornaments are not mentioned in either the *Iliad* or the *Odyssey*, and all the references to silver tend to show that in Homeric times silver objects were not in common use. They were only to be found in palaces, in the houses of important men, and in the treasuries of temples.

Somewhat later, about the middle of the fifth century, the metal seems to have become fairly abundant, and silver vessels and other objects appear not only in the homes of the opulent, but also in those of people of less affluence.

As a result of the vast booty obtained by the conquests of Alexander a period of luxury sets in, and we have a profusion of silver plate displayed at the feasts and fêtes of persons of rank and of the wealthy citizens, while the common people who could not afford real silver had imitations made of silvered pottery.

Notwithstanding the abundance of vessels of luxury and other objects of silver which Greece possessed during the days of her greatest prosperity, few examples have come to light. This is, however, hardly surprising if the accounts of historians of the ruthless plunder and destruction effected by the Romans on their victories over the Greeks are only partially true.

The following two examples are worthy of note. They were dug up with other silver and gold objects by Mr. John Lee in 1812, in excavating some tombs on Mt. Aito in Ithaca (Ionian Sea).[8] The silver dish is $9\frac{1}{2}$ in. in

[1] *Iliad*, xxiii, 740. [2] *Odyssey*, iv, 125. [3] *Ibid.*, iv, 615. [4] *Ibid.*, xix, 55.
[5] *Ibid.*, xxiii, 200. [6] Hesiod, *Theog.* 778. [7] Hesiod, *Scutum Herculis*, 183 et seq.
[8] *Archaeologia*, xxxiii, 45 et seq. and pl. iii.

diameter. Its outer surface is embossed in a radiated pattern consisting of two circles of conical ornaments. It had originally been supported on a stem, as the ornamentation is in relief on the exterior, and in the centre of the base there is a small concave plane for its attachment.

The other is a bell-shaped cup $3\frac{3}{4}$ in. high and $3\frac{7}{8}$ in. in diameter at the mouth. The upper part of the cup is delicately engraved with vine leaves and branches of grapes, the lower part is embossed with boldly designed leaves. This portion has been gilt by burnishing on thin leaves of gold.

The mines of Laurion, which subsequent to the Homeric period contributed largely to the revenue and advancement of the Athenian State, are worthy of consideration, and especially so as they are typical examples of the mining industry of silver and lead in the ancient world.

The old workings and remains have been very thoroughly explored by Cordella and Ardaillon, more so in fact than any other ancient mines. It will hence be not without interest if I give here a brief description of the manner in which they were worked, as determined by these explorers,[1] and a short account of their history.

The ancient mining district of Laurion lay between the promontory of Sunion and Amphitrope and covered an area of about eight miles from north to south and three miles from east to west, the richest portions being around Maronea near the modern Camereza. The mines only appear in the history of Athens about the beginning of the fifth century B.C., but, as I have already pointed out, there is evidence that they were in operation as early as Mycenaean times. The production of the mines in the first centuries of their existence yielded but little silver compared with those of Asia or Spain. During a long period Laurion was unable to compete with the richness of the mines of Lydia, which Herodotus considered as El Dorado of his time, nor with those of Thasos or of Siphnos that were in full development in the seventh and sixth centuries. This may account for the silence of the ancients regarding them.

As regards the people of the island of Siphnos in the time of Polycrates (sixth century B. C.), according to Herodotus they possessed more wealth than all the other islanders, since they had gold and silver mines on their island, and they divided among themselves the money which came in from the mines every year.[2] The ore which yielded silver was argentiferous galena, and remains of the hearths employed for the extraction of silver from the lead have been found on the ancient mining sites.

At this time or shortly afterwards Spain must also have been a direct source of silver, as Massilia was founded in 600 B. C. and the ships of the Greeks

[1] Ardaillon, *Les Mines du Laurion* (Marseille, 1869).

[2] Herodotus, iii, 57, 58.

which visited Gaul can hardly have failed to voyage to the south-east coasts of the silver-producing regions of that country.

In the fifth century Laurion enters on a period of activity greater than in earlier times. At the commencement of the century, according to Aristotle,[1] the mines of Maronea were discovered in one of the oldest districts of Laurion, an event confirmed by the testimony of other authors. This doubtless relates to the occurrence of an unusually large deposit of galena rich in silver in one of the old mines. It is said to have yielded about 100 talents, and it was proposed that this should be divided among the citizens of Athens, but on the advice of Themistocles it was devoted to the construction of a fleet of war ships.[2]

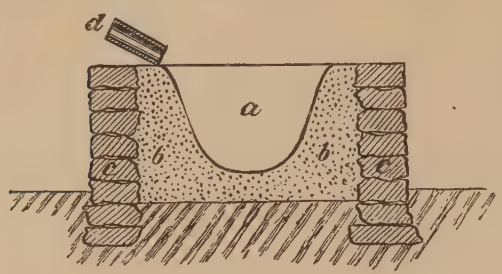
The mines were then the property of the State, but were leased to individuals and were worked by slave labour.

About the middle of the fourth century B.C. Xenophon[3] complained that the output of the mines had greatly diminished as compared with the previous years, and attributed the falling off, first, to the want of vigour in the exploitations due to the deficient capital possessed by the lessees, who were hence reluctant to engage in any exploratory work which might be unprofitable, and, secondly, to a want of slave labour. To remedy the first of these disadvantages Xenophon proposed that the lessees should no longer act as individuals, as was their custom, but should work in combination by forming companies and so avoid individual losses. As regards the second he proposed that the State should purchase at once 12,000 slaves, this number to be afterwards increased, and lease them to the miners. By this procedure he estimated that the increase of output due to their work would yield in one year an amount of silver of the value of sixty talents clear of all expenses. There is no record of either of Xenophon's proposals being adopted, but the mines shortly afterwards certainly had a time of great prosperity, that appears to have continued during the years of peace preceding the Peloponnesian war. From that time the production of the mines gradually diminished until in the time of Strabo mining operations ceased altogether.[4] The veins no longer yielded sufficient ore to pay for its extraction, and the little silver that was produced was obtained by smelting the waste heaps left by the old miners and resmelting the slags which, owing to the want of skill of the older men, still contained paying amounts of the metal.

In the second century of our era Pausanias speaks of the Attic mines as things of the past.[5] They were, however, reopened in 1864 and are at the

[1] Aristotle, *Constitution of Athens*. Trans. by T. J. Dymes, 52.
[2] Herodotus, vii, 144; Plutarch, *Life of Themistocles*, iv.
[3] Xenophon, Ποροὶ ἢ περὶ Προσόδων, iv.
[4] Strabo, ix, cap. i, 23.
[5] Pausanias, Ἀττικά, i, 1.

present time again producing silver. Although when mentioned by ancient writers they are termed silver mines, the ores they yielded were not true silver ores but argentiferous lead ores—galena and cerussite—and the silver produced was not obtained directly from them, but from the argentiferous lead which was the first product of the smelting.

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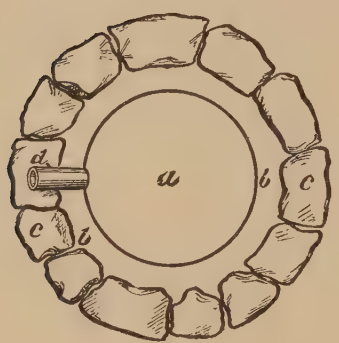


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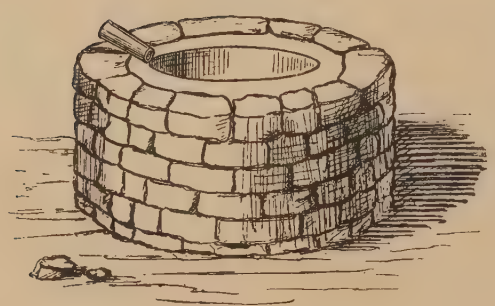


Perspective view.

Fig. 9. Lead-smelting furnace. Laurion. Reconstructed. (*a*) Working hearth. (*b*) Refractory lining. (*c*) Rude wall of roughly-dressed stones. (*d*) Blast pipe.

The ore varied in its content of silver, but was fairly rich, containing according to Cordella from about 32 oz. to 114 oz. of silver per ton, whilst according to Cambresy its content was from 49 oz. to 130 oz.[1] The earliest workings at Thoricos were merely surface excavations. In later times, the mining was carried on by means of shafts, one of which is 119 metres (about 390 ft.) in depth, and small galleries, never exceeding a metre in height. The tools which have been found in the galleries are all of iron. They are simply the hammer, the gad (miner's chisel), and a single-headed pick. No stone or bronze implements were found. The underground mining is hence not earlier than the Iron Age.

M. Cordella, Director-General of the mines at Laurion, when clearing the ground for the modern works, was fortunate in discovering remains of the furnaces in which the ore was smelted.[2] These remains are of special importance as they are of undoubted antiquity. In other regions where the metallurgical work has been more or less continuous up to medieval times and later, there are often great difficulties in deciding as to the period to which any given remains should be assigned; but at Laurion these do not occur, as the mines were abandoned in the first century of our era and there is no evidence to show that any work was afterwards done there until the year 1864.

No complete furnace was discovered, yet the fragments were sufficient to

[1] Ardaillon, *op. cit.*, 17.

[2] *Ibid.*, 76.

show that the furnaces were low hearths, rising but little above the surface of the ground, circular in form, about one metre (3·28 ft.) in diameter, and constructed of roughly-cut blocks of trachyte or schist, or sometimes of bricks. The cavity or working hearth must have been formed within this wall by the usual lining of refractory clay and charcoal. The furnace was worked with the aid of an artificial blast of air, and a clay tuyère or blast-pipe was discovered on the site. No aperture for the blast-pipe or for tapping out the lead from the hearth is mentioned by Cordella. In a former paper I have given drawings, which I reproduce here (fig. 9),[1] of what in my opinion was the construction of the old Greek furnace and which I think represent fairly accurately its essential features when ready for the operation of smelting.

It is difficult to say from Cordella's description whether it was or was not more deeply embedded in the ground than is shown in the figure.

The furnace is hence in all essential characters practically identical with the furnace (fig. 10) used in Japan,[2] differing from it only in its slightly larger size, its encircling wall of stones, and in requiring more powerful bellows. And I am strongly convinced that it was worked in the same way, i. e. with the blast-pipe resting on the upper edge of its cavity, and certainly not entering at its base, as has been supposed by some writers.

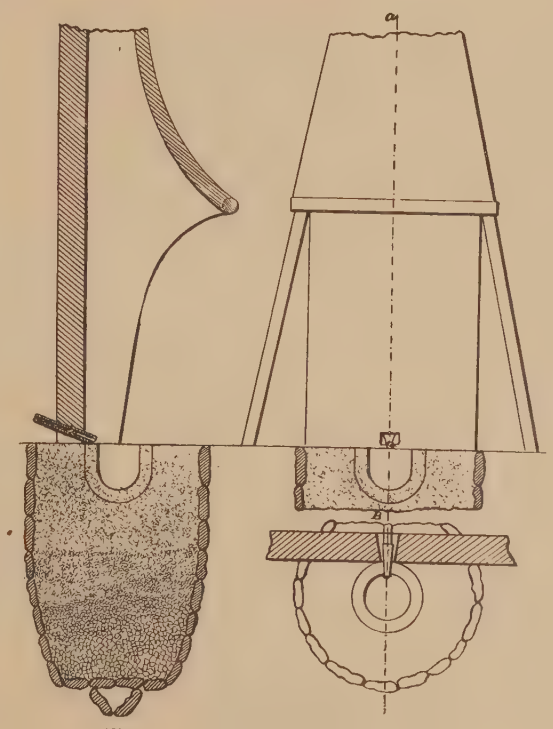


Fig. 10. Japanese smelting furnace.

The operations for the treatment of the ore must have been as follows:

The surface ore would consist largely if not entirely of cerussite and would require no preparation before smelting. When the ore was wholly galena a preliminary partial roasting would be required. As no remains of roasting kilns have been found, this operation was probably carried on in heaps as practised in Japan. Much of the ore apparently was poor and required concentration to free it from impurities and gangue. This was effected by a series of washings with water, the cisterns for which are very numerous on all the sites of the old mines. The cerussite or the roasted galena was charged into

[1] *Archaeologia*, lvii, 392.

[2] *Archaeologia*, lvii, 387.

the furnace in alternate layers with charcoal and smelted by the aid of a blast of air through one or more tuyères resting on the upper part of the furnace as

Fig. 11. Remains of Roman cupellation hearth Hengistbury Head.

shown in the figure. As soon as sufficient lead had accumulated in the furnace, the slag was raked off and the lead either ladled out or tapped through an aperture in the side of the furnace. The latter I think may perhaps have been

the usual practice, although Cordella noticed no tap-holes in the remains of the furnaces which he found.

The silver was extracted from the lead by the process of cupellation in simple furnaces similar to the Roman hearths (fig. 11) of which remains have been found at Silchester, Wroxeter, and Hengistbury Head. The furnace consisted of a shallow hearth of marl together with bone-ash enclosed by stone or clay slabs. A charcoal fire was made on the hearth and the lead to be desilverized placed on it and melted. The fire was then raked towards the sides, a blast of air was introduced, the lead was oxidized, the lead oxide formed being partly absorbed by the hearth and partly raked off. When the whole of the lead had been thus removed, a cake of silver, which also contained any gold which had been present in the ores, was left in the cavity of the hearth. That bone-ash was used in the construction of cupellation hearths at Laurion is proved by the occurrence of 2·4 per cent. of phosphoric acid in an ancient slag found by Cordella at Thoricos.

The metallurgists of Laurion were evidently skilful in conducting the operations, as the coins of Athens before Alexander generally assay 985 parts of silver per 1,000.

At Ergasteria (Laurion) a cupel made of earth and of a similar shape to those used in silver assaying at the present day was found among the ancient slags. Its dimensions are: diameter 40 mm., height 20 mm., depth of cavity 10 mm. According to Cordella,[1] it had been used for the purpose of estimating the amount of silver in lead. It is just possible that it may have been so used, yet, if so, it is difficult to account for the total absence of any literary evidence to show that the Romans had a knowledge of the assay of silver by cupellation.

*Phoenicia.* An ancient people of special importance in the early history of silver now claims our attention. Our knowledge of the Phoenicians is very far from being so complete as we should wish, hence not all they have been credited with can be accepted as fact, and there are good grounds for holding that much which has been attributed to them really belongs to the early Aegeans. In Phoenicia it is hardly necessary to point out that only very feeble traces of its once great renown for the working of metals, especially silver, have been found in the country itself. Its antiquities have been destroyed and its cities despoiled of everything of value. Hence, for examples of its work in silver we are dependent on the discoveries which have been made in excavations in Cyprus, and in Etruria and Latium in Italy, and on the works of Homer and other Greek writers.

If the predominance of Sidon was reached in the tenth century B.C. and the

[1] A. Cordella, *Le Laurion*, 103.

supremacy of Mycenae came to an end in the twelfth century, the Phoenicians would seem to have been a great maritime people in late Mycenaean times and to have continued so for several centuries, until Carthage and the Greeks wrested the sea-power from them. They were then the merchants and traders of the world, and as such had become rich in silver, which they obtained from Spain, Gaul, Sardinia, Thrace, the islands of Siphnos and Thasos, the silver-bearing districts of Asia Minor, and probably Laurion. But it was from Spain that they derived their chiet supply of the metal.

Gades was founded by the Phoenicians in 1100 B.C. and became an important silver port. Even before that date they had intercourse with the people of the rich mineral district of the Baetis. For more than ten centuries, from the time of Thothmes III (1550 B.C.) to Alexander the Great, they remained the great maritime traders of the ancient world and exported the products of their workshops to all the countries of the Mediterranean region.

The Jewish kingdom, owing to its proximity to Phoenicia, appears to have been a specially important recipient of the metal, as we read that in the reign of Solomon (1015–977 B.C.) 'silver was as stones in Jerusalem'.[1]

Among the various examples of work in silver which have been found in graves in the Mediterranean region and have been attributed to the Phoenicians the following are specially noteworthy.

Perhaps the most characteristic are the shallow drinking-cups or bowls corresponding to the φιάλη of the Greeks and the *patera* of the Romans. In all these the decorative designs are executed partly in Egyptian and partly in Assyrian style, preference being given to the former. The subjects are distributed in concentric bands or zones around a central medallion. Sometimes there is only one band, but usually two and rarely three. Perrot and Chipiez[2] divide these vessels by their designs into two groups, but not with rigorous exactness, as they pass insensibly one into the other. In the first, the artist represents a scene of ideal or real life; in the second, he portrays a series of irrelevant incidents or *motifs* taken here and there from Assyria and especially from Egypt.

One of the bowls[3] which is typical of the first class was found at Praeneste in Latium. It was taken from a cavity, probably funereal, and was associated with a quantity of objects of bronze, gold, amber, electrum, others of silver, and iron, also arms and various utensils. It is 19 cm. (about $7\frac{1}{2}$ in.) in diameter, and coated with gold. The exterior is without ornament, while the interior is decorated in repoussée and chased work.

[1] 1 Kings x. 27.
[2] Perrot et Chipiez, *Histoire de l'Art dans l'Antiquité*, iii, 757.
[3] Perrot et Chipiez, *op. cit.*, iii, 758.

In the outer zone are represented the various incidents in a hunting expedition, in the inner a file of horses with birds above, and in the medallion a scene in a combat.

A silver-gilt bowl[1] from Dali, Cyprus, is typical of the decoration of the second class, in which there is a mingling of imagination and reality. In the principal zone we have indeed a lion hunt, but the lion is not alone, but with him the imaginary beast, the griffin, also appears. It is, too, not a representation

Fig. 12. Silver bowl. Praeneste.

of a continuous scene, as in the Caere bowl, but a series of groups of distinct incidents not related to one another.

Another bowl (fig. 12)[2] which was found in the necropolis of Praeneste is specially worthy of note as it bears a Phoenician inscription and the style of its decoration is more purely Egyptian than that of others. It is 19½ cm. (about 7⅝ in.) in diameter.

A silver plate (fig. 13)[3] from the famous Regulini Galassi tomb at Caere in Etruria is of particular interest as its approximate date has been determined

[1] Perrot et Chipiez, *op. cit.*, iii, 771.
[2] Perrot et Chipiez, *op. cit.*, iii, 97.
[3] Perrot et Chipiez, *op. cit.*, iii, 768.

(seventh century B.C.). In the zone surrounding the medallion is represented a lion chase. The outer zone, which is only partly shown, is occupied by a procession of warriors and chariots, while in the medallion we see two lions attacking a bull.

In the decoration of all these articles we have just considered, and of many others which have been found, a striking feature is the limited range in the

Fig. 13. Silver plate. Regulini Galassi tomb.

*motifs* of the Phoenician craftsman; the same subjects are repeated again and again, so that one is almost inclined to believe that they comprised his stock-in-trade and that he was a manufacturer rather than an artist.

'If there is one thing more characteristic than another in Phoenician art, it is its borrowed nature, and its incongruous collocation of foreign elements.' [1]

*Cyprus.* In Cyprus the silver objects of indigenous workmanship which have been unearthed are mostly finger rings and other personal ornaments.

[1] Evans, *Address, Anthropological Section of the British Association*, 1896.

A silver poniard, however, is worthy of special note, as it is of similar form to those of copper, which are undoubtedly of a very high antiquity, and to one also of silver that was found by Schliemann [1] in the layer of the second city of the Hissarlik settlements (2500–2000 B.C.), and is most probably of Cypriote origin. It is placed by Déchelette [2] in period I of the Bronze Age in Europe, to which he assigns the date 2500–1900 B.C.

Unfortunately some of the excavations in the island have not been conducted so systematically or carefully as the importance of such work demands. The other and more valuable articles have been attributed to Phoenician origin. Of these the most important are the bowls, one of which was unearthed by Cesnola at Amathonte. They resemble very closely those which were found in Etruria and Latium.

The bowl [3] which was dug up in a tomb in the necropolis of Amathonte is imperfect, about one-half having been destroyed by weathering. In the outer zone are represented various episodes in the siege of a town. The very varied costumes and arms of the besiegers would almost seem to indicate that the scene has no historical basis, but that the artist has portrayed in it the principal types of the peoples known to him.

*Etruria.* Another ancient people, the Etruscans, are more noted for their bronze and iron than for their possessions of silver. Yet the excavations which have been made on the ancient sites in Etruria and the explorations in the tombs tend to show that silver was in use to a considerable extent. Personal ornaments are rare, and the metal appears to have been chiefly used for bowls and vessels for domestic use, mounts for furniture, and the like. The earliest specimen of Etruscan silver work known to me is a fibula to which the date 1000–900 B.C. has been assigned by Montelius.[4] A curious example of the use of the metal is afforded by some finger rings found with bronze mirrors in an ancient tomb in Praeneste, in which silver forms the core upon which a sheath of gold has been fashioned.[5]

In the famous Regulini Galassi tomb (seventh century B.C.), whilst the objects of gold are numerous, those of silver are but few.

There is no evidence of silver mining in their territory, hence the metal must have been obtained by commercial intercourse. Of this we have the evidence of the silver bowls with Egyptian and Assyrian designs which have been found in the early tombs and have been attributed to Phoenicia (see p. 152).

There was also found at Praeneste, in a grave cut in the ground, the silver

[1] Schuchhardt, *Schliemann's Excavations*, 67.
[2] Déchelette, *Manuel d'Archéologie*, ii, pt. i, 47, 194.
[3] Perrot et Chipiez, *op. cit.*, iii, 775.
[4] Montelius, *Journal of the Anthropological Institute*, xxvi, pl. xxvi.
[5] *Archaeologia*, xliv, 354.

mounts of a wooden *situla* or bucket, with similar conventional representations of bulls, griffins, and sphinxes.[1]

Many of these articles may have been directly imported by the Phoenicians, but there can be little doubt that the skilful metal-workers of Etruria would copy the foreign designs which were in favour and some may really be of native work.

It is not until later times that Greek *motifs* are common in metal work, and in this connexion Murray states: 'It is not now regarded as a fiction that in the seventh century B.C. certain artists who found life in Corinth unbearable from the tyranny of its ruler emigrated to Etruria and established themselves and their art there.'[2] Hence a little later the designs on Etruscan bronze work are chiefly Greek in subject and conception, yet examples in silver are rare.

*Lydia, Caria, Lycia, and Rhodes.* The south-west of Asia Minor in later but pre-Roman times was a region of some importance in silver mining.

Slags, excavations, and waste heaps mark the sites of ancient mines in at least five localities, some of which have been reopened and at work in our own times. At Yenekoi, in Lydia, not far from the ancient Tralles, the argentiferous lead produced at a modern mine, working on one of the ancient sites at Gumush Dagh (Silver Mountain), is reported to be exceptionally rich in silver, containing up to 559 oz. per ton.[3]

In the island of Samos the old workings are being exploited by a Belgian company, but the results have not been published.[3]

At Myndos (modern Guimushli) in Caria, near Halicarnassus, the remains of shafts and large quantities of slags testify to the former importance of this mining site, while in the island of Rhodes and in the mineral district of the Tris Maaden in Pisidia are also similar evidences of ancient work.

Lydia, Caria, and Lycia were hence of no little importance in the Ancient World owing to their possession of these silver-lead mines. The Lydians appear to have been the richest in silver, and the city of Ephesus the most noted for workers in the metal. They were said by Herodotus to have been the first of men who had a gold and silver coinage.[4] This statement is confirmed by numismatists, who attribute the first Lydian coins of silver to the time of Croesus (the middle of the sixth century B.C.).

As regards Rhodes it is almost certain that the drinking-cups, *θηρίκλεια*, for which the island was noted, were often made of silver.

*The Hittites.* In the Hittites we have a people whose early history is buried in obscurity and of the limits of whose territory we have but little know-

[1] *Archaeologia*, xli, pl. xi.
[2] Murray, *Handbook of Greek Archaeology*, 120.
[3] *Mineral Industry*, 1899, p. 442.
[4] Herodotus, i, 94.

ledge. During late years, however, sufficient evidence has come to light to show that the rich metalliferous districts of the Taurus ranges were at one time in their possession. The ancient mines of Denek Maaden (Galatia), Ak Dagh Maaden (Cappadocia), and Gumush Maaden near Iconium were also in their territory. Important evidence of the extreme antiquity of mining in Asia Minor, probably extending back to the Neolithic period of culture, is afforded by the recent explorations of an American mining engineer in some old workings in the neighbourhood of Iconium, one of the Hittite towns.[1] They are not in argentiferous lead ore but in a deposit of cinnabar (native vermilion). In sinking a small shaft from a chamber in the upper part of the old mine a large lower chamber was penetrated in which were the skeletons of more than fifty men, with a great number of stone hammers and some earthen lamps. The mine had been worked for cinnabar for its use as a colour, and the men had evidently been entombed owing to a collapse of the gallery leading from the chamber to the open air.

The Taurus range as a source of silver in Asia Minor was perhaps second in importance only to the Trapesus region. At several points extensive remains of the workings and waste heaps of the ancient miners occur, and some of the veins of argentiferous galena are being worked in our own times. Near the eastern extremity of the range are situated the silver-lead mines of Bulghar Maaden, on a rock near which a long Hittite inscription of nearly 400 ancient symbols was discovered in 1890.[2] The presence of a Hittite text so near these important mines goes far to create a presumption that they were worked by that little understood people. Other ancient workings are not far distant. The mines of Bulghar Maaden were reopened in the latter half of the last century and are reported to have produced 7,050 lb. of silver in 1910.[3]

Notwithstanding the above-mentioned deposits of argentiferous lead ores in the territory of the Hittites, we know as yet very little of the uses to which they applied silver, but that they were users of the metal in comparatively early times is shown by a plate of silver[4] on which is written in Hittite characters a copy of the treaty with Egypt which was presented to Rameses II (1330–1250 B.C.) by the ambassador of Khatlusil, king of the Hittites. Also by a small plaque of a later time bearing the figure of a warrior and inscribed in Hittite and cuneiform characters with the name of a Hittite prince. From the style of the cuneiform inscription Professor Sayce attributes it to the time of Sargon (722–705 B.C.).

*Persia and Media.* In Persia as in Chaldaea but few specimens of silver work have been unearthed in any of the excavations and explorations which

[1] *Mineral Industry*, 1908, p. 746.
[2] *The Times*, 25th July 1891.
[3] *Mining Journal*, 1910, p. 1202.
[4] Hall, *The Ancient History of the Near East*, 364.

have been made on the sites of the once famous cities of Susa and Persepolis. No royal or princely tomb has yet been discovered, and the remains of the palaces have not yielded even a trace of the vast treasures which history recounts were in their possession when Persia was in the height of its prosperity, had conquered the greater part of western Asia, and even held Egypt in subjection. The vast treasure in bullion alone that the kings of Persia had accumulated in Susa as a reserve against adverse fortune, and which, according to Diodorus,[1] Alexander found in the palace, amounted in value to 40,000 talents of silver in silver and gold ingots, besides 9,000 talents in coins.

Additional testimony to the original wealth of the country in silver is supplied by Polybius[2] in his description of the palace at Ecbatana, in which he states that the columns in the arcades and peristyles were overlaid with plates of silver and gold, while all the tiles were of silver. Most of these had been stripped off by Alexander. His description is of the state in which the palace was found at the time of the Macedonian conquest. There was, however, a considerable number of silver tiles and bricks piled up in the temple of Aena at the time of the arrival of Antiochus (third century B.C.).

If, as Polybius states, a large sum of money was coined with this silver, the so-called bricks must have been ingots, as the tiles would only be silvered, and not consist of the pure metal. Further confirmation, if such is needed, of the wealth and luxury of the Persians is afforded by the account given by Herodotus[3] of the spoil taken by the Hellenes at Plataea, 'the tents were furnished with gold and silver, and beds overlaid with these metals'. 'There were, too, cups and cauldrons of gold and silver in sacks on waggons, also sheets of gold and silver and other treasure on the field.'

A fragment of a silver vase found by M. de Morgan in his excavations on the necropolis of Susa is of interest on account of the unusual percentage of gold present. It was partly converted into silver chloride. An analysis by Berthelot gave the following results:[4]

| | | |
|---|---|---|
| Silver | 65·27 | 64·14 |
| Gold | 1·12 | |
| Copper | 2·94 | |
| Chlorine | 16·98 | 16·72 |
| Sand | 1·44 | |

The vast treasures of silver amassed by the Persian and Median kings were doubtless largely the plunder obtained in successful wars. There were, however, important deposits of argentiferous lead ores in the country, notably in the Elburz Mountains near the Caspian Sea, the Karadagh range, and near

[1] Diodorus, xvii, 66.
[2] Polybius, x, 27.
[3] Herodotus, ix, 80, 81. See also Strabo, xv, cap. iii, 10.
[4] *Comptes rendus*, cxlii, 473.

Uramiah in the north-west, and to the south-east of Kerman. The mines of Armenia and Western Asia Minor were also within reach and for some time were in their possession. The ores worked in the Karadagh have been examined by C. A. Brouard, who reports a content of 30 per cent. of lead, the lead obtained assaying about 20 oz. of silver per ton.[1]

As regards the peoples of antiquity who at any time in their history were engaged in maritime intercourse, I may say it is extremely probable that they obtained part of their silver from Pontus and the adjacent districts to the south of the Euxine. This region, so far as our present knowledge goes, is the most highly mineralized region of Asia Minor, and the very numerous ancient workings testify to its great importance as a source of the metal in early times.

The following are the principal sites which have been explored, but there are many others of lesser extent:

*In Pontus.*

Gumush Khaneh to the south of Trebizond (*Trapesus*). Gumush Maaden in the neighbourhood of Tireboli (*Tripolis*), the probable site of the ancient Argyria (Professor Warrington Smyth).

Baiburt near *Domana* on the northern frontier of Armenia.

Hadjee Kioy, ENE. of Amasia (*Amaseia*).

*In the Karahissar district.*

Karahissar (*Colonia*).

Gambibel near Enderes, in the vicinity of Karahissar.

Boucar Dagy.

The Derekioi valley.

Lidshesi near Sivas (*Megalopolis*).

Another site is near Erzerum (*Carana*), Armenia.

All the above-mentioned places were the sites of argentiferous lead mining at a very remote period long prior to that of Roman activity. The ore deposits, however, were not exhausted, as the excavations of the ancient miners extended only to shallow depths.

At Karahissar some of the local inhabitants do a little mining upon narrow rich veins of argentiferous galena, one of which is said to yield ore of the value of £300 per ton, as it contains gold as well as silver.[2]

Another deposit of ore which was discovered by ancient surface workings yields 70 per cent. of lead containing from 48 to 128 oz. of silver per ton.[2]

At Boucar Dagy, an old mine which was reopened by the Turkish Government is said to afford a profit of £4,000 annually. The ore is of unusual richness, the large amount of 600 oz. of silver per ton being sometimes obtained. At

[1] *Mining Journal*, November 1913.

[2] G. M. Edwards, *Trans. Inst. of Mining and Metallurgy*, 1914, 197.

Lidshesi, a mine operated by the Asia Minor Mining Company is reported to have an annual output of from 3,000 to 7,000 tons of argentiferous galena. Another mine has also been reopened by this company at Gambibel, but no return of its production has been published. That so few have been reworked is owing to the difficulties of communication, the absence of facilities for transport, and the lack of enterprise of the Turkish Government.

Fig. 14. Map showing sites of principal ancient mines.

The sites of the principal ancient mines dealt with in the paper are shown in the Map (fig. 14).

*China.* An early use of the metal has been claimed for China, where, in the third millennium B.C., three metals are said to have been used as barter, the yellow, the white, and the red, namely, gold, silver, and copper. It was without doubt known in that country in very remote times, but Chinese chronology, whilst possessing the quality of precision, lacks that of accuracy, so that it is quite impossible to assign an even approximate date to most of the records contained in the ancient books.

(*b*)

*Photos. by Mr. W. D. Moss, by courtesy of Major Gordon Dugdale.*

(*a*)

RESTORED COMPOSITE CAPITAL

Found in the Leauses, 1838, and now in the 'Abbey' grounds

*Published by the Society of Antiquaries of London*, 1920

# VII.—*Roman Cirencester.* *By* Professor F. Haverfield, *M.A., LL.D., F.S.A., F.B.A.*

Read 13th December 1917.

**1.** Introduction. **2.** Name and situation of ancient Cirencester; a road-centre. **3.** Area, walls, gates. **4.** Buildings, Basilica. **5.** Suburbs, amphitheatre. **6.** Dwelling-houses. **7.** Town-plan, streets, *insulae.* **8.** Mosaics. **9.** Detailed finds: sculptured and worked stones (*deae matres*); sepulchral monuments and inscriptions; *colonne au géant* (range of this cult; the Mainz column). **10.** History of Corinium: evidence of pottery and coins; date of foundation; a tribal capital; causes of its prosperity; Cotswold wool; tile-making; Romanization (a Latin charm). **11.** The end of Corinium. Bibliography. Appendices: I, on the derivation of the name Cirencester, by W. H. Stevenson, Esq., M.A.; II, on a figure of Eros, by Professor Stuart Jones; III, on the *Matres*—or *Nutrices*—relief, by Professor M. Rostovtzeff.

(**1**) *Introduction.* At the present moment, nothing, perhaps, would so much extend our knowledge of the Roman Empire as a close study of the character and history of its town-sites. It is only by working out the details of inhabited sites—and especially of towns—one by one, that we can get the premises needed for certain general conclusions as to the history of the Empire and, above all, of its provinces. If, for example, we can prove (as I believe we can) that many provincial towns were founded or first developed, or began especially to flourish, in the Flavian age (A. D. 70–96), we shall gain light on the spirit of that age, and on the policy of its government, which we cannot obtain otherwise. These things are not told us by ancient writers, not even by Tacitus; archaeology alone reveals them.

Unfortunately, the historical study of single sites has been undertaken by scholars in no country, except in France. Even epigraphists, who meet many dates on inscriptions, and whose work leads them to study closely the character and history of single spots, have seldom essayed the task in the sense in which I mean it. It is, of course, no easy task. It needs local knowledge and local activity for its adequate execution. An exhaustive inquiry into the 'Samian' found on any town-site or into the Roman coins picked up there will probably yield dates to show, e. g., when the town began, when it flourished, and when it ended. But in England, at least, this generally means a long search through undusted and uncatalogued museums, and through the private collections of persons who rarely know what they actually possess. The inquirer must settle himself in, or repeatedly visit each town in turn, asking often what coins, etc.,

have been found and are to be seen there. At first he will probably be told that there are none. Later on, he will find that some one has remembered that once he, or his great-uncle, had antiquities in a certain drawer, and, maybe, inscriptions in an outhouse. Then, if the owner has not at the moment gone suddenly away on a long visit, the inquirer will have to get leave to overhaul and list these antiquities. In short, he must make himself a thorough nuisance to the townspeople, before he attains real results. I will not boast that I have done this at Cirencester as fully as I ought to have done. That town, by train, is twice as far from Oxford as is London; but, even in war-time, I have been able to visit it now and again. In the course of my visits, I have received great help from many of its citizens; above all, I am uncommonly indebted to the kindness of Mrs. Cripps (widow of our former Fellow, the late Wilfred J. Cripps, C.B., who died in October 1903). To Mr. Cripps students of Cirencester owe much of their knowledge of the Roman finds made in the town some fifteen or twenty years ago; since his death, Mrs. Cripps has kept up the good work, acting as a vigilant observer of new finds, whether made on her own land or elsewhere in Cirencester. Whatever completeness I have achieved is largely due to her great kindness and hospitality, as well as to the care which she and her late husband have bestowed on local Roman remains. I am also indebted to Mr. F. W. Taylor, architect, of Cirencester, who has done much planning and measuring at her instance. My debt is the greater, since the books on Roman Cirencester are few and are not very good (see below, p. 199).

Two points may be noted here as lessons to be learnt from the remains of Corinium:

(*a*) They illustrate well the close relations which existed in Roman days between Britain and the civilization of western Europe. We may reflect, not without satisfaction, that Britain was then in touch with the predecessors of our French allies, and that there then was—if one may say so—a West-European culture[1] which differed widely from that of 'Mittel-Europa'.

(*b*) They illustrate also what may be a defect in the organization of our Society. Cirencester (as I shall show) was the second largest town in Roman Britain: London alone exceeded it in area, and its remains agree with its size. New finds, often of much moment, occur almost daily in it. Yet no record of these finds has lately reached our pages. I am not reflecting on the diligence of any particular person, if I express a feeling that here our system of local secretaries has somewhat failed. Since Mr. Cripps died in October 1903, hardly

[1] I may refer in this context to Dr. Karl Schuchhardt's paper '*West-Europa als alter Kulturkreis*', arguing that, in prehistoric days too, Spain, France, and South England had a definite *Kultur* of their own, distinct from that of Mid-Europe (*Sitzungsberichte der kgl. preussischen Akademie der Wissenschaften*, Berlin, 1913, xxxvii, pp. 734–65).

(*d*)

*Photos. by Mr. W. D. Moss, by courtesy of Major Gordon Dugdale.*

(*c*)

RESTORED COMPOSITE CAPITAL

Found in the Leauses, 1838, and now in the 'Abbey' grounds

3 ft. 5 in. high, 3½ ft. wide at the top from corner to corner, and 4½ ft. diagonally; diameter of base 1 ft. 11½ in. (See pp. 191 foll. and fig. 16.)

*Published by the Society of Antiquaries of London*, 1920

any account of a new Roman find at Cirencester seems to have made its way to Burlington House. Perhaps the position of the town, east of Cotswold and on the extreme south-eastern edge of Gloucestershire, may be to blame. But it begins to look as if the London Antiquaries did not include in their purview this important site. After this passing criticism, I proceed to sketch the Roman town, so far as I can.

First, let me take the geographical problem, which no one has really faced in print, why there ever was a Cirencester, why, that is, the second largest town in Roman Britain should have grown up in the corner of the Cotswolds, where Cirencester now is.

(2) *Geographical position of Cirencester.* Cirencester, often styled 'the capital of the Cotswolds', probably the Romano-British *Corinium Dobunorum*[1], is a small Gloucestershire town in an open valley, beside the river Churn and its pleasant meadows, and near the eastern edge of the Cotswolds, where that stream begins to enter the lowlands of the Upper Thames valley. Probably it owed its importance in Romano-British days partly to its pleasant and healthy position—with a gravel sub-soil and abundant water at a convenient depth,—but partly also to its nearness to the east end of a comparatively easy passage over Cotswold from the Upper Thames to the Vale of Berkeley and Gloucester and to the plain beside the lower Severn. To-day, two railways (G.W.R. and M. & S.W.R.) thread the hills a little north-west of Cirencester, on their way

[1] The matter is not so certain as is usually stated:—(*a*) Ravennas (427. 16) names a place, *Cironium Dobunorum*, apparently on a road between Gloucester and Silchester. (*b*) Ptolemy, *Geogr.* ii, 3, 12—the best authority for the spelling of the name—has Κορίνιον (some MSS. have Κορίννιον) as the only 'town' of the Dobuni. But (*c*) the Antonine Itinerary (485. 5) places, plainly close to where Cirencester now stands, a station *Durocornovium*. Hübner accepted this name (*Corpus Inscriptionum*, vii, p. 29). He connected it with the *Purocoronavis* of Ravennas (424. 9); but, apart from its first letter (P), that cannot be Cirencester, since it was probably in West Devon; in any case, it is unknown and unidentifiable. (*d*) Philological difficulties beset the derivation of the modern name Cirencester from a Romano-British form, *Corinium*; since the early English forms of the name (*Cyrenceaster*, etc.) presuppose a form Curin-, not Corin-. The spelling in Ravennas, Cironium, would provide a satisfactory philological ancestor for Cirencester, but the evidence of Ptolemy is against it. Mr. W. H. Stevenson suggests to me that, nevertheless, the difficulty may be solved if we can suppose a Welsh influence, which would account for the phonetic irregularity, and would permit us to derive Cirencester from Corinium; see his views, set out by himself, in an appendix to this article, p. 200. The other difficulty, caused by the Itinerary with its *Durocornovium*, may be solved by thinking that, as the MSS. of the Itinerary vary, there may be an error in its text. Durocornovium itself, according to the late M. d'Arbois de Jubainville (*Noms gaulois chez César*, Paris, 1891, p. 208), is an adjective, with which *praedium* or the like is to be supplied; it means 'property of Durocornovius' (or, 'of Cornovius of the fortress'): he, maybe, was a wanderer from the Cornovii in Shropshire, who settled at Cirencester and bore his tribal name.—The territory of the Dobuni extended from Herefordshire (*Eph. Epigr.* ix, pp. 635, 636) into Oxfordshire: its exact limits are uncertain.—(Mr. Baddeley's interesting note on the name Cirencester (*Gloucestershire Place-names*, Gloucester, 1913, p. 43) is, I think, not quite accurate.)

to the same valley, while the Thames and Severn Canal (the 'Stroudwater Canal') makes its way not far off through the Sapperton Tunnel, and both Canal and G.W.R. descend westwards along the deep Stroud gorge, which here cuts far into the hills, and helps the crossing of Cotswold at this point. The Roman road (see below and fig. 2) from Cirencester to Gloucester, however, did not take exactly this line; it ran by Birdlip, which is easily reached from Cirencester,

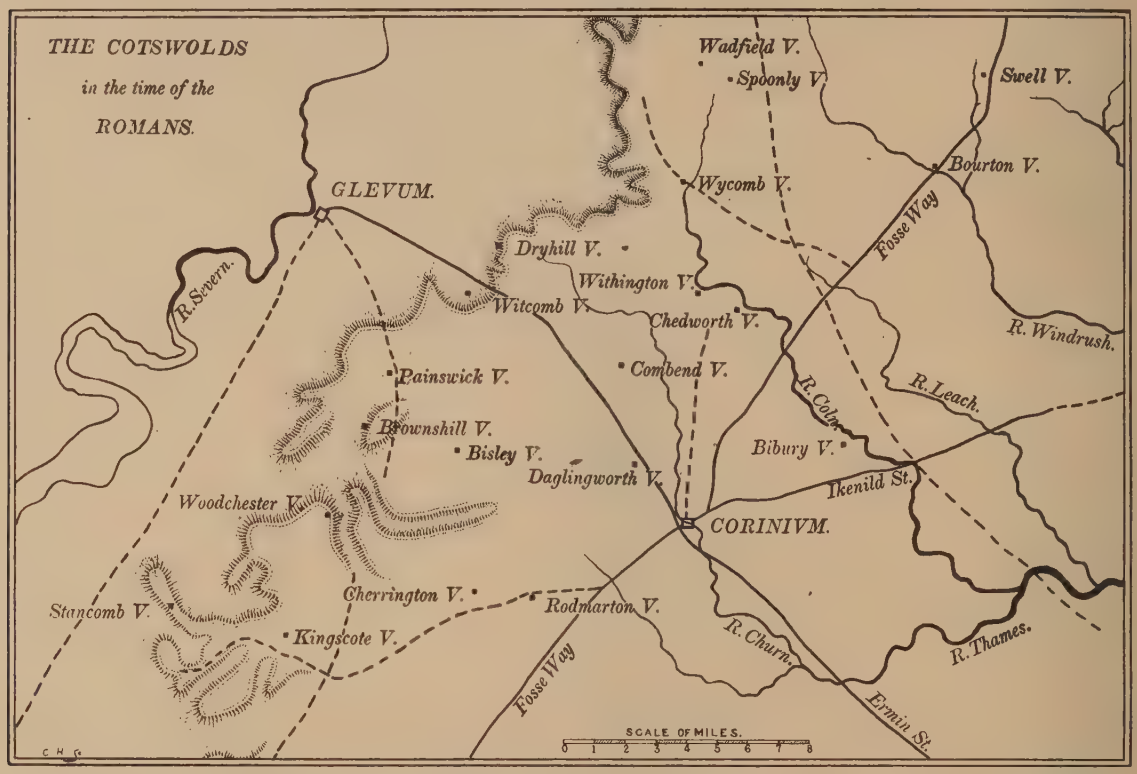



Fig. 1. The Cotswolds in the time of the Romans. Note.—Ermine Street ran through Cirencester, and not as shown here. Ikenild Street is a mistake for Akeman Street. *V* = Roman Villa.
(*Block lent by Bristol and Glouc. Arch. Soc.*)

distance 10 miles; there the whole descent into or climb up out of the Severn plain can be made, *more Romano*, in one drop or ascent of 700 feet in 2 miles.

Cirencester is most accessible from east and south-east, and is a natural centre for roads running up to the Cotswolds from the English Midlands. It was, indeed, anciently a meeting-place of important Roman roads. Through or from it ran four highways (see fig. 2):

(*a*) Through it, from north-west to south-east, ran the Roman road, known in the middle ages as the Fosse, which connected Lincoln (*Lindum*) with Bath, and ultimately with Exeter (*Isca Dumnoniorum*).

(*b*) Through it from north-west to south-east ran the so-called Ermine Way,

Fig. 2. Roman roads near Cirencester.

connecting Gloucester (*Glevum*), through Cirencester and Newbury (*Spinae*), with Silchester, and ultimately with London.

(*c*) From it a third road, known to modern antiquaries as Akeman Street,[1]

[1] In early medieval documents, as Mr. W. H. Stevenson tells me, the name Akeman Street does not occur so far west as Cirencester. 'Via Acmana', anyhow, should disappear from maps; it is merely a bogus Latinism; no Roman could have used a road-name derived from a post-Roman appellation.

ran eastwards; as traceable along highways still in use, it coincided at first with the Fosse; diverging from that a mile outside the east-gate, it ran on eastwards to the midlands north of Oxford, and to the Bicester country; finally it joined Watling Street, perhaps near St. Albans, and thus provided another fairly direct route from Cirencester to London.

(*d*) From it a fourth and much shorter route, now known as the 'White Way', ran northwards; starting from the north end of the town, it led, as a modern lane still leads, some eight miles nearly due north to a sumptuous Roman country-house in Chedworth Woods. This road, however, can have had little more than local significance, unless, as some have rather rashly thought, it continued north beyond Chedworth; probably it was merely the way to the 'château' of a local magnate (compare the Gartree Way, from Leicester to Medbourne).[1]

Thus, Cirencester, pleasant, accessible and well watered, had natural importance in early days.

(**3**) *Area, Walls, Gates.* Plate XI. The mere area of Corinium is remarkable. Its town-walls, about two miles in length, can be traced with comparative certainty, especially along the east and south-east sides, as well as a part of the west side (notably in the Workhouse garden). They include within their circuit a roughly oval and almost level expanse of about 240 acres,—or maybe a little more—which measures as much as 1,500 yards from north to south, and a trifle under 900 yards from east to west. The Midland Railway station rises close outside the south end of the enclosure, near the supposed site of the South Gate; the Great Western Railway station and Lord Bathurst's seat (Cirencester House) stand just beyond its north-western limit. In general, the modern town, now growing, still mainly lies within the ancient Roman walls, which allow room also for spacious modern gardens and meadows. The Roman walls were constructed of concreted rubble, and faced with largish squared blocks of local oolite from the Querns (p. 170, note 1)—a fine white stone—in 18-in. cubes; they are (or were) backed by a stout bank of clay and gravel, or of gravel alone.[2] An ill-preserved piece, uncovered in 1774, was (according to Mr. K. J. Beecham) 8 ft. thick. Leland, who visited Cirencester in the days of Henry VIII,[3] mentions also 'a fundation of towers' as 'sometyme standing on the waul', along the east front. These 'towers' were presumably projecting bastions, such as were common on Roman town-walls in the later Empire. None are now visible, but

[1] Such special roads to large country-houses exist, or have lately existed (as I am told) in several modern countries—for instance in Spain and in Ireland, where in Connemara one case has been cited to me of a special road of this sort 40 miles long, from Galway westwards to Ballinahinch.

[2] Buckman and Newmarch, *Illustrations of the Remains of Roman Art in Cirencester* (1850), p. 10. What stone-face (if any) the wall had on the inner side (towards the town) seems not to be certain. Cf. *infra*, p. 180 (iii).

[3] Printed accessibly in *Bristol and Glouc. Archaeol. Soc. Trans.*, xiv, 228.

the bases of one or two, near the Workhouse, on the west side of the town were, Mr. F. W. Taylor tells me, destroyed within living memory.

Of the *gates* little is known. Certain lines of modern highways which represent ancient Roman roads approach the walls at four symmetrical points and there make direct union with internal streets. Here the Roman gates may be put, although no structural traces now survive above ground nor have any been definitely recorded. For reasons which will appear below (p. 195), it is better not to name these gates '*porta praetoria*', or the like. The gates are:

(1) The North Gate, at the north end of Dollar Street, by which the road from Gloucester and Birdlip, 'Ermine Street', entered the town.

(2) The East Gate, at the east end of Lewis Lane and of London Road, by which the Fosse and Akeman Street, having met a mile east of the town, entered together.

(3) The West Gate, opposite the Querns (i.e. the Amphitheatre, see p. 170, note 1) at the west end of Querns Lane. Here the line of the west wall takes an odd turn, suggestive of a gateway,[1] and a road can be clearly seen leading across the fields to the amphitheatre.

(4) The South Gate, near the Midland Railway station. Here the line of a Roman road, represented by a modern high-road, starts south-eastwards for Newbury and Silchester. Of this gate, foundations are said to have been discerned when the Midland Railway was built, about 1881, but they have not been planned or recorded in print, so far as I can learn.

(**4**) *Public Buildings inside the town.* In respect of its size (240 acres) Cirencester was larger than any other Romano-British town except London, and larger than most towns in the western Empire. It had nearly the same internal area as Colonia Agrippinensis, now Cologne on the Rhine. Its individual remains correspond with this area. It can, indeed, boast of no such striking ruins as the Balkerne gate at Colchester, the Jewry Wall at Leicester, or the Newport gate at Lincoln. A famous saying of Thucydides about ancient Sparta is true of Cirencester.[2]

Modern Cirencester is a picturesque town of some 8,000 inhabitants, with

[1] Compare similar turns at gates at Newstead, near Melrose, and at Castlecary on the Wall of Pius in Scotland, and also at Noviomagus, Nymwegen in Holland (J. H. Holwerda, *De Stad der Bataven en de Romeinsche Vesting te Nijmegen* (Leiden, 1918), Afb. 5). I suspect that such entrances may be connected with the first century A. D., in point of date; if so, the *outline* of Corinium must have been fixed in that century, though the actual wall may be later.

[2] Thucydides, i, 10, 2: 'for, if Sparta were laid empty, and its temples and the foundations of its structures were left, I suspect that, in time to come, men would much mistrust the report of its power, although the Spartans now rule two-fifths of the Peloponnese, and control the whole and also many allies outside it. . . . Therefore (continues the historian) one must not be sceptical, or consider only external appearances.'

old low houses, and narrow, mainly tortuous, streets ; most of its houses are built of the local oolite, and it resembles an old Provençal town, say Manosque or Apt, more than most English country-towns. For proofs of its Roman state the student must go to its two museums. One of these, near the Great Western station, founded about 1850 by the fourth Earl Bathurst, is maintained by his successors ; the other was begun by the late Mr. Wilfred Cripps—to whom the study of Roman Cirencester owes so much—in a hall adjacent to his private house (Crippsmead), is maintained faithfully, in excellent order and cleanliness, and has been from time to time enlarged by Mrs. Cripps. The Bathurst Museum, the earlier foundation of the two, preserves many of the older Roman finds in Cirencester ; the Cripps Museum contains perhaps rather the more recent discoveries. Either collection by itself would do honour to any ordinary Romano-British site in this country. Each contains architectural pieces which testify to large structures,—handsome capitals (pp. 181 ff.) and the like, while fine mosaics, fragments of sculpture, many coins, and abundant Samian indicate inhabitants who were obviously acquainted with the comforts of civilized life. But the modern and medieval town lies too exactly over the Roman site to allow any hope that we shall ever learn much in detail of the Roman buildings of Corinium.

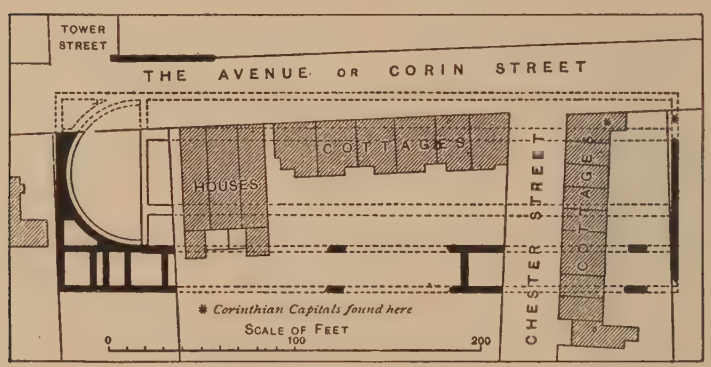



Fig. 3. Plan of Basilica, excavated 1897–8.

*The Basilica.* Still, in 1897–8, Mr. Cripps was able to plan and lay before us (in our *Proceedings*) almost the whole outline of a large Basilica or Townhall.[1] It lay immediately south of, and indeed partly under, the street called the Avenue (formerly Corin Street). Its west end (figs. 3 and 4) adjoined the point where Tower Street now meets the Avenue.

This Basilica was a really large hall, about 320 ft. long, with a western apse (but probably no eastern one), a columned nave $34\frac{1}{2}$ ft. wide, and, in addition, two aisles, each $17\frac{1}{4}$ ft. wide. These dimensions much exceed those of the better known Basilicas at Silchester, Caerwent, and Wroxeter,[2] while two large carved Corinthian capitals found in it show that the Cirencester Basilica had architectural stateliness as well as size. Presumably, as elsewhere, a forum adjoined the Basilica. It has not yet been detected. Mr. Cripps thought that possibly it lay

[1] W. J. Cripps, *Proceedings* (1898), xvii, 201–8 (with two plans, here reproduced).

[2] The Basilicas at Caerwent, Wroxeter, and Silchester were about 180 ft., 229 ft., and 240 ft. long respectively.

north of the Basilica, between the Avenue and Lewis Lane. Unfortunately, no discovery has yet been made in this space which either confirms or disproves that view. Nor has any other public building yet been traced in Cirencester. There has been talk of a 'praetorium', but there is no reason to think that a town of

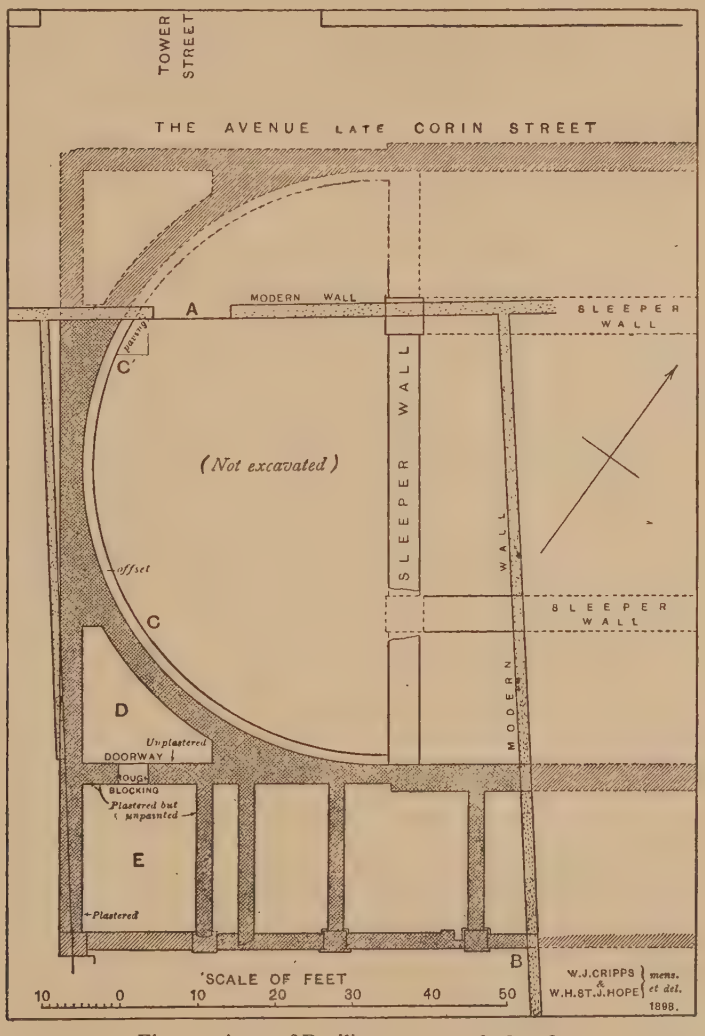



Fig. 4. Apse of Basilica, excavated 1897-8.

civilians ever had a 'praetorium', and much which suggests that it had not (p. 195 foll., below). It is a dream of militarist antiquaries, who see traces of the Roman army in season and out of season.

(**5**) *Remains outside the Walls: Suburbs.* Large as it was within its walls, the Roman town grew to some extent beyond them, as the modern town is coming to do to-day. A fine mosaic still exists outside the north end of the town, at the

Barton, and indicates a Roman house of some importance there, while the 'Bull-ring', opposite the probable site of the West Gate (Chesterton), seems to be the remains of an external amphitheatre.[1] Relics of an extra-mural house have also been noted in this quarter near the Somerford Road (list of mosaics no. 42; see p. 178). However, these suburbs are small.

Further search, such as Mr. Cripps carried through so skilfully in respect of the Basilica twenty years ago, would doubtless reveal other Roman structures

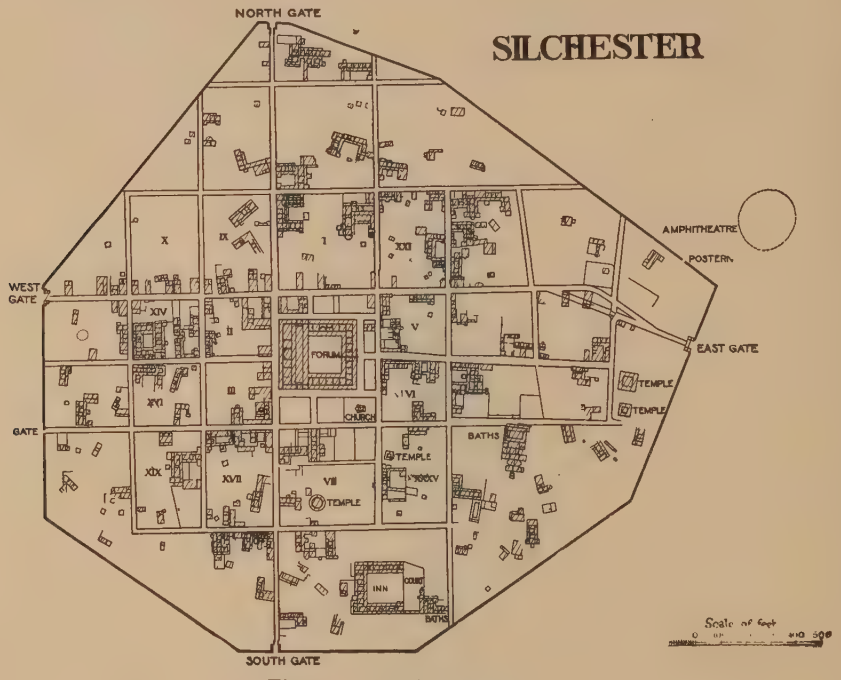



Fig. 5. Plan of Silchester.
(*Block lent by Delegates of Clarendon Press from Prof. Haverfield's 'Town Planning'.*)

in Cirencester. But till this can be done successfully, one must adopt the sound, if irritating, motto of the scientific archaeologist: 'Wait and see.'

[1] The Barton mosaics, lately restored for Lord Bathurst by Mr. A. H. Powell, were figured in colour by Buckman and Newmarch in their 4° edition, p. 25 foll. For the 'Bull-ring' see the same, p. 12, pl. i. The earthen mounds round the floor of the Amphitheatre are 20 ft. high, and enclose an oval space 134 ft. by 148 ft. There are two entrances 28 ft. wide, one at each end of the major axis; Rudder (*Glouc.*, p. 349) gives the diameters as 46 yds. by 63 yds., but he seems to include the mounds as well as the floor of the amphitheatre. Although the exact character of the disturbed ground, commonly known as the 'Querns', is not clear, there seems no reason to reject the idea that it was an amphitheatre. A stone found at Chedworth scratched PRASUTA (*Prasuta*[*gus*]) or PRASLATA (*Praslata*) —not PRASIATA, as in *J. Brit. Arch. Assoc.* xxiv, p. 132, pl. xii, 4, and *CIL.* vii, 72 *a*—indicates some interest hereabouts in chariot contests in an amphitheatre. There were amphitheatres at Caerwent, at Silchester, at Dorchester in Dorset, perhaps at Leicester, and other towns. They were commoner in Roman Britain than Dr. L. Friedländer at all realized (*Sittengeschichte Roms* (ed. 8, 1910), ii, pp. 558-632).

(6) Numerous *private dwelling-houses* are known, but only in the most fragmentary way. So far as I am aware, no complete plan of any house has yet been published, nor has any house ever been fully plotted on paper. The least incomplete plan known to me shows a part of a clearly large and comfortable house found in 1849 near the south end of Dyer Street[1]; but of this house only $5\frac{1}{2}$ rooms were planned. The discoverers seem to have cared more for two fine mosaics than for the house-plan. Apart from mosaics, we know little of the Roman houses in Corinium.

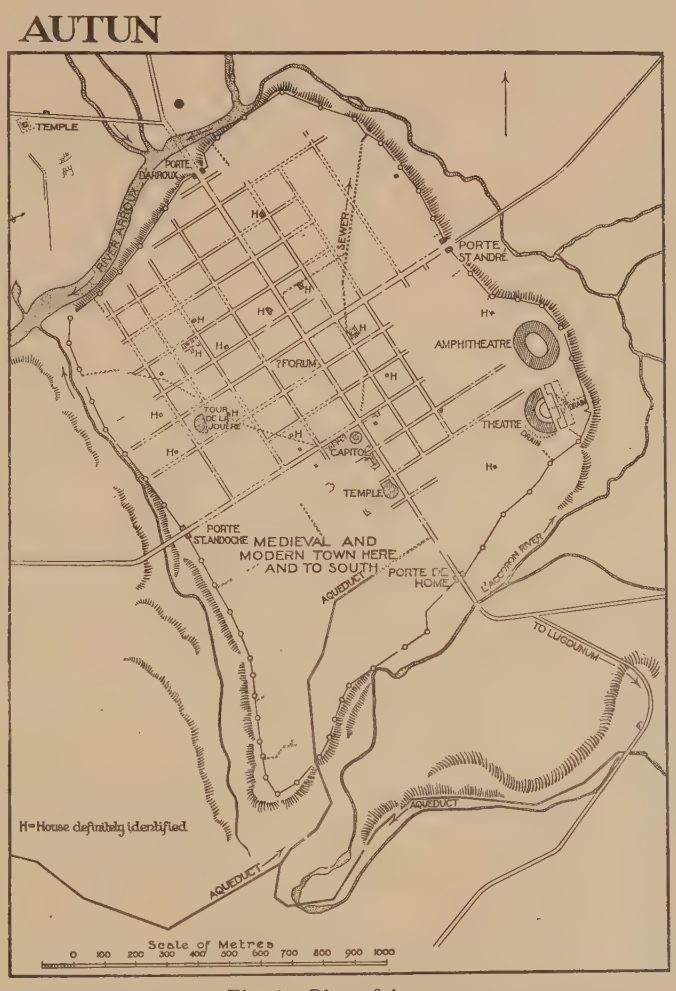



Fig. 6. Plan of Autun.
(*Block lent by Delegates of Clarendon Press from Prof. Haverfield's 'Town Planning'.*)

(7) *Streets, town-plan, insulae.* Some evidence suggests that the town was laid out on a regular chess-board plan, like Silchester (fig. 5) or Gaulish Autun (fig. 6). One long, straight street, probably Roman, has been traced through the middle of the town, from north to south; antiquaries frequently style it 'Ermine Street', because at each end it lines up with and merges into a highway which represents a Roman road, often in the middle ages called Ermine Street. This is the Roman road which ran from Gloucester to Birdlip hill, and thence to Cirencester; thence on to Speen (by Newbury), Silchester, and London, as mentioned above (p. 164). The northern section of this street in its passage through the town coincides more or less with the present Dollar Street; its line then crosses the site of St. John's church; farther on, it roughly coincides with Tower Street and skirts the west end of the Basilica. Then it passes through the 'Leauses',

[1] Buckman and Newmarch, pp. 25, 35 foll., with a small plan, but no scale: elaborate coloured plates of the mosaics are added in the 4° edition. See list nos. 4 and 5, below p. 174.

gardens between Chester Street and Watermoor Road[1]; it was found in building the west end of Bingham Hall in 1908; farther south its traces fade out. Where last identifiable, it is pointing towards the site of the South Gate at the Midland Railway station. There Ermine Street passes out of the town, and becomes the existing high-road to Newbury (Speen), Silchester, and London. Some twenty-five or twenty-six years ago, part of another street running north and south was noted by Mr. Cripps in the Ashcroft, a north-western quarter of Cirencester; this, so far as it could be traced, ran parallel to Ermine Street, about 130 ft. west of it; beneath it was a sewer. A second parallel street was also detected by Mr. Cripps 300 ft. farther west.[2] Mr. Cripps has further pointed out that we have indications of a Roman street running east and west, that is, at right angles to the above mentioned 'north and south' streets. The present Lewis Lane and Querns Lane, which are old streets—not due to recent improvements—form a notably straight thoroughfare, which traverses the Roman town from the East Gate, where the Fosse entered, to the West Gate opposite the Querns. This may well be a Roman street-line; if so, the meeting-point of Lewis Lane and Tower Street marks the 'Carfax' of Corinium. But before we adopt that attractive hypothesis, we need proof that the modern surface of either Lewis Lane or Querns Lane overlies the metal of a Roman roadway running east and west beneath it. No such find has yet been recorded; however, in the absence of contrary evidence, the theory may be regarded as not unlikely.[3]

These facts seem to imply that, in all probability, the Roman streets of Corinium ran in chess-board fashion at right angles to one another, and we may conjecture that the town contained rectangular *insulae*, as did Silchester and many other Roman provincial cities. No definite proof of this has yet been found. Still, it seems highly probable, and the length of the Basilica and other indications suggest that, near the centre of the Romano-British town, some of the *insulae* measured about 140 yards from east to west, while the *insulae* of the forum—if it was, as Mr. Cripps thought, situated between Lewis Lane and the Basilica (the Avenue)—may have measured as much as 140 yards square (4 acres). This may seem a rather excessive size. At Silchester the largest *insula* falls a trifle short of $3\frac{1}{2}$ acres; at Wroxeter, Mr. Bushe-Fox has detected an *insula* of 2 acres; at Trier 'house-blocks' have been found of $3\frac{1}{2}$ acres.[4] No doubt the

[1] Here it seems to agree with a long, very straight garden road shown in Lysons' Map of Cirencester, *Reliq.* ii, plate III (1817).

[2] See *Bristol and Glouc. Archaeol. Soc. Trans.*, xvii, 12–13; information from Mrs. Cripps. No plan of these roads has been issued, but I have been able to include them in my plan, by Mrs. Cripps's kindness. See also below, p. 176, note 1.

[3] W. J. Cripps, *Proceedings*, xvii, p. 202.

[4] The *insulae* of the western provinces are much larger, just as they are more irregular, than those

*insulae* varied in size at Cirencester, as elsewhere, and were, as e.g. in Timgad and Turin, largest near the main street. Presumably they were not occupied wholly by houses, but, like the *insulae* at Silchester, included spacious gardens.

I should add that well-defined and fairly regular *insulae* are shown on a plan of Corinium, issued thirty years ago, and re-issued in 1911, by the late Mr. K. J. Beecham. Unfortunately, he has not put on record the exact evidence for them; he seems to have assumed, *a priori*, that the town must have been divided up in this way. Of course that is likely enough, but we need specific proof that it *was* so divided. In default of that, I hesitate to reproduce his details, while I agree with his general conclusion.

(8) *Mosaics.* Apart from the Basilica and the conjectural street-plan, the principal feature of Roman Cirencester within the walls is supplied by the mosaics already referred to. One may, in general, assume that a large and well-designed mosaic indicates a substantial dwelling-house, built on civilized lines and inhabited by well-to-do persons, able to appreciate civilized ways. I give below a condensed list of the known mosaics of Cirencester, incomplete, no doubt, but, as I hope, fuller and more complete than anything yet printed on the matter.[1] It seemed worth while, in dealing with so large a town, to attempt to sum up the existing material, especially as it is ill-recorded, if only for comparison with the mosaics of other Romano-British towns. I cannot, indeed, here illustrate these mosaics with adequate coloured plates. Under the shadow of war-finance, one must be content with much less than that, and, though the French antiquaries in their admirable *Inventaire des mosaïques de la Gaule* (Paris, 1911 foll.) have shown us what can be done with uncoloured photographs, yet the moment forbids a full series of plates showing all the picturable mosaics, and, as Lysons a hundred years ago issued admirable coloured plates of some few of them, I need make no effort to figure them here. I may say, however, without fear of contradiction, that the Cirencester mosaics surpass those of Silchester or of Caerwent, and would in normal times and favourable circumstances deserve

of Italy or Africa: see, for details, my *Ancient Town-Planning* (Oxford, 1913, pp. 83 foll.). But the western world seems to have used larger gardens than Italy or Africa, where the house-blocks appear to have been more like large tenement-houses, while at Silchester each *insula* was a garden with one or more detached houses in it. This is part of the difference between the towns of western Europe and those of the Central Empire. It is quite conceivable that much of the large area of Cirencester was taken up by gardens; at the same time, the position of the mosaics (see general plan) shows that the houses were many, and probably large, in most parts of the town. They seem to be few in the north-east; but that is because there has been little building and street-making there in recent times, and therefore little excavation and few discoveries.

[1] For much aid in compiling this list I am indebted to the active co-operation of Miss M. V. Taylor, M.A. The middle column (*Remarks*) is intended to show both the character of the design, so far as recorded, and also the character of the site.

illustration on a scale even more lavish than fell some years ago to the lot of the Silchester mosaics in *Archaeologia* (1890–1910).

## TABLE OF MOSAICS.

| *Date of find.* | *Original site.* | *Remarks.* | *Present locality where known.* | *Authorities.* |
|---|---|---|---|---|
| 1. 18th cent. | Dyer St. (N. end, W. side): under the 'Shambles' of the Boothall (Woolmarket): N. end of Cornhall Buildings. | No recorded details. (Bravender (map in Beecham) marks another a little south, probably confused with this). | | Rudder, *Glouc.*, p. 348; Beecham, pp. 265–6. |
| 2. May, 1777. | Dyer St. (E. side): under Croome's warehouse, now apparently no. 113 (S. of Broom Ho.), 6 ft. deep. | Geometrical design (16–18 ft. sq.), red, white and blue; star and small figures—'hearts ... interlaced fretwise', chequered border. An old road crossed diagonally nearly. | Part removed to pave the space between the door and gate of no. 113 Dyer St. (F. W. Taylor). Nowgone. | Rudder, *Ciren.*, pp. 61–2; *Gent. Mag.*, 1849, ii, 358; Beecham, p. 266. |
| 3. Late 18th cent. | Dyer St. (E. side): in the garden of 'Archibalds', Dr. Small's house, now no. 104 (Beecham, p. 183), near the Congregational Chapel; a little south of no. 2. | No details recorded. | | Rudder, *Glouc.*, p. 348; *Ciren.*, p. 61. |
| 4. 1849. | Dyer St.: a Roman house crossed the line of the present street obliquely between the Ship Inn and Moulder & Orum's (W. side), no. 50. It contained hypocausts and an arched furnace; room 25 ft. sq. and 3½ ft. deep. | 4. 16 ft. sq.: figures of sea-horses pursuing fish, head of Neptune, hunting dogs, etc., and conventional ornament. | Bathurst Museum. | Buckman, pp. 36 foll. and 63, with plates; *Arch. Journ.*, vi, 326, plate; *Gent. Mag.*, 1849, ii, 358–9, plate; 1850, i, 25, plates; Beecham, p. 267, figs. *Illustrated Lond. News*, 8 Sept., 1849, ii, 164. |
| 5. | | 5. Imperfect. Originally, nine octagons with medallions (heads of four seasons, and five mythological persons: Actaeon, Silenus? Bacchus? etc. Perhaps a centaur in the centre. (Ruby glass used in this floor.) | ,, ,, | |
| 6. 1820. | Dyer St. (NE. side), to be connected with nos. 4, 5, and 8; under a cheese-factor's, Jenkins', formerly the *Standard* office (now no. 93), close to office of *N. Wilts Herald.* | Figure of Orpheus with Neptune or other sea-god, and two circles of birds and beasts; geometrical border. | | Beecham, p. 267, figs. from C. Bowly's drawing; *Gent. Mag.*, 1849, ii, 358 (giving date of find as 1810–20). |
| 7. 1883. | Dyer St. (W. side): in a yard behind Moulder & Orum's (now no. 50); to be connected with nos. 4 and 5. | No details recorded. | | Beecham, p. 272. |

PLAN OF ROMAN CIRENCESTER

The exact position of the gates is unknown, but they cannot have been far from the points indicated (see p. 167). The west gate and the road leading from it to the Amphitheatre may have been a little farther north, more in line with Querns Lane.

*Published by the Society of Antiquaries of London*, 1920

TABLE OF MOSAICS (*continued*).

| *Date of find.* | *Original site.* | *Remarks.* | *Present locality where known.* | *Authorities.* |
|---|---|---|---|---|
| 8. About 1783 (or 1793). | Dyer St. (W. side): under Gloucester House, then occupied by Mr. Smith, later by Mrs. Cripps, now by Mr. Oven (nos. 51–2). 6 ft. deep. | Sea beasts, and blue 'labyrinthine fret' on a white ground. | Part still under Oven's warehouse. | *Vetusta Monumenta*, II, xliv; Lysons, ii, pl. vii; Beecham, pp. 266–7; Rudder, *Glouc.*, p. 348; *Ciren.*, p. 63, col. plate; *Arch. Journ.*, vi, 325, 329. |
| More recently. | Part of this taken up at Miss Costello's shop (no. 53). | Neptune, with black and blue labyrinthine fret on white ground. Chequered border in black, yellow, red, white. | Border and fret in Mrs. Cripps's garden. Rest being put together for her by Mr. F. W. Taylor (Oct. 1917). | Information from Mr. Taylor. |
| 9. 1810. | In the garden of Mr. Lediard, west of Dyer St. and Gloucester Ho. (no. 8). | No account. | | Lysons, *Reliq.* ii, Pl. III, e. |
| 10. 19th cent. | At intersection of Cricklade St., Castle St., and Market Place (probably found in the sewerage works). | Tessell. floor, and large stone block. | | Beecham, p. 272. |
| 1875–80. | In Cricklade St., between the Bell Inn (no. 1) and Messrs. Bishop's (no. 173), now a Bank; 8 ft. deep. | 'A common polished pavement' of fine gravel fixed in plaster, hammered and polished; probably floor of a yard or path. | | Mr. Taylor; Beecham, p. 272. |
| 1917. | Cricklade St. (E. side, N. corner), in building the Bank at no. 173. | Foundations. | | Mr. Taylor. |
| 11. Prob. 1875–80. | Cricklade St. (E. side, N. end). | Tessell. floor, no details recorded. | | Bravender's map in Beecham. |
| 12. ,, | Cricklade St., opposite the King's Head Tap, 8 ft. deep. | Tessell. floor. | Destroyed. | Beecham, p. 272. |
| 13. ,, | Cricklade St., 'a few yards lower down the street,' i.e. southwards from no. 12. | A 'paved chamber'. | | Beecham, p. 272. |
| 14. 1853 and 1913. | Cricklade St. (E. side), 'in the passage between Smith's shop (now a seed merchant's) and the bakehouse' (no. 160); about opposite the S. corner of Ashcroft Road. | A floor. Near here a well, a path going east and west, and foundations of 2 walls, 24–7 in. thick, running NW. and SE., thought to bound a road, were noted later, 5–8 ft. below the surface. | *in situ* in 1853. | Beecham, p. 272; information from Mr. Taylor. |

TABLE OF MOSAICS (*continued*).

| *Date of find.* | *Original site.* | *Remarks.* | *Present locality where known.* | *Authorities.* |
|---|---|---|---|---|
| 15. 1849. | Cricklade St. (W. side), under the back of Cripps's Brewery. | Tess. floor (fragments). | Bathurst Mus. but part *in situ*, in the foundations of a building put up in 1894. | *Wilts. Arch. Mag.*, xiv (1873), 192, xxvii, 9. |
| 16, 17. Sept., 1909. | Field N. of Ashcroft Rd., and S.W. of no. 15 (16. 4½ ft. deep; 17. 20 in. deep). | 16. Geometrical (10 × 7 ft.); had suffered from fire; 17. Above 16, a smaller floor, also geometrical. | Cripps Mead. | *Glouc. Journ.*, 10 Sept. 1909, hence *Antiquary*, xlv, Oct. 1909, p. 366 (Mr. Cripps). |
| 18–21. About 1902–5. | Found in laying out the grounds of Ashcroft House for building. | | | Mr. Cripps's pla . |
| 18. | Ashcroft Rd. (N. side). | Tess. floor. | | Marked on Mr. Cripps's map and on O.S. |
| 19. | Do. (S. side). | Tess. floor. | | do. |
| 20. May, 1902. | Ashcroft Villas (N. side; more found 1908). | Neptune with trident, fish, dolphin, sea-weeds, etc., paving a bath 5½ ft. sq. with stone steps into it, pipes, etc. Bluish-green glass tesserae in Neptune's beard represent water. Inscription and sculptured stones just west of it (p. 180). | Mrs. Cripps's garden. | *Glouc. Echo*, 8 May 1902; hence *Antiquary*, xxxviii. 377; *Proc. Soc. Antiq.*, xxi, 163–4 (Mr. Cripps). |
| 21. | Ashcroft Gardens (E. end). | Tessell. floor. | | Marked on Mr. Cripps's map and in O.S. |
| 22. 1891. | Between Ashcroft Villas and Querns Lane, south of the R. C. Church; found in laying out the site. | Tessell. floor; well and foundations under priest's house adjoining. | | Information from Mr. W. D. Moss and from Mr. F. W. Taylor. |
| 23. Before 1886. | Close to no. 22, under the boundary wall of Ashcroft Ho. garden; near a saw-pit up a haulier's yard, Querns Lane. | Tessell. floor, said by Mr. F. W. Taylor not to be the same floor as no. 22; probably the same Roman house. | | Beecham, p. 272. |
| 24. Spring or summer, 1837. | Brewin's garden in Querns Lane (S. side) W. of Watermoor Road, behind Bridge's Almshouses. | Geometrical mosaic. | Part still *in situ*; the rest destroyed. | Buckman (1850) p. 33, (1842) p. 25, figs. *Gent. Mag.* (1849), ii, 358 (site not quite accurately described). *Arch.* xxxi, 461.[1] |

[1] *Note to no. 24.* Walls were found under the Cotswold Brewery, just south of Cole's Mill, at E. corner of Lewis Lane and Watermoor Road, in 1915; more walls, in the winter of 1915–16, also the base of a pillar (now

TABLE OF MOSAICS (*continued*).

| *Date of find.* | *Original site.* | *Remarks.* | *Present locality where known.* | *Authorities.* |
|---|---|---|---|---|
| 25. 1856–60. | Alma Place, Lewis Lane, in laying out a garden path; 200 ft. from Tower St. | Tessell. floor. | *in situ.* | Beecham, p. 271. |
| 26. Late 19th cent. | Lewis Lane (S. side); in adding a billiard room at W. end of house (Chester Lodge) opposite to the Board School. | Tessell. floor. | | Mr. F. W. Taylor. |
| 27. Before 1813. | E. corner of Oyster Shell (or Carpenter) Lane, and Lewis Lane. | Tessell. floor. | | Lysons, *Reliq.*, ii, pl. III f.[1] |
| 28. | The Avenue, S. side. | Basilica, see p. 168 above. | | See p. 168. |
| 29.<br>30.<br>31. | 'The Leauses' between Watermoor Lane and Tower St. | See below, p. 179. | | See below, p. 179. |
| 32. Before 1813. | The Avenue (S. side), in road through nurseries, in a line with Tower St., a little S.E. of Watermoor Ho. | Tessell. floor; no details recorded. | | Lysons, *Reliq.*, ii, pl. iii f. |
| 32 A. 1808. | A little S.E. of 32, in a pasture adjoining the Leauses. | Geometrical pavement, 18½ × 20 ft., Head of Minerva in the centre. | | Lysons, *Reliq.*, ii, pl. v, xxxiii and iii d, p. 10; *Arch.*, xviii, 124. |
| 33. *c.* 1898. | E. of Watermoor Ho. in building pig-sties. | Tessell. floor, close to no. 32. | | Mr. Cripps's plan; information from Mr. Taylor. |
| 34. Prob. *c.* 1864. | Claremont Place, Chester St., in building an outhouse. | Tessell. floor. | *in situ.* | Beecham, p. 271. |
| 35–39. *c.* 1850. | At the 'Firs', New or Victoria Rd. (W. side) adjoining Claremont Place (Bravender's house), in building a house. | 35. a floor with a bird in the centre. | *in situ* 3 ft. below tiled floor, in the hall of the 'Firs'. | *Journ. Brit. Arch. Assoc.*, xxv, 105; Beecham, p. 252, 271; Mr. F. W. Taylor. |
| 1868–9. | At the 'Firs', in trenching a garden to the S.W. | 36, 37. Two red tessellated floors, with dark borders; much wall-plaster here and apsidal masonry. | | do. |

supporting an iron pillar) and a gate-pier in a jamb. Under the Mill engine-house was found in March 1907 part of a road thought to run north and south; it was about 6 ft. below the present floor and 26 ft. east of Watermoor Road. Close to Watermoor Road was part of a gravel floor. (Information from Mr. Taylor.)

[1] *Note to no. 27.* Mr. Taylor records that a line of piers or columns crossed Lewis Lane from north-west to south-east, from *Glouc. and Wilts. Standard* Printing Works to junction of Dyer Street and Lewis Lane, where he saw one pier himself.

TABLE OF MOSAICS (*continued*).

| *Date of find.* | *Original site.* | *Remarks.* | *Present locality where known.* | *Authorities.* |
|---|---|---|---|---|
| 1908. | In making King St. and Bingham Institute, or Hall, on part of the 'Firs' garden and ground SW. of it. Near the surface. | 38. Everywhere red tessell. floors with dark borders. Several detached houses with small rooms, plain floors with ornamental borders covered with two to three inches of ashes, in which were late coins; pavements poor; many signs of burning. The walls were almost parallel to the line of the Roman road, Ermine St. (see p. 171). | | *Journ. Brit. Arch. Assoc.*, xxv (1869), 177. *Wilts. Arch. Mag.*, xiv, 191–2. Beecham, notes; *Bristol and Glouc. Arch. Soc.*, xvii, 63. *Notes on Cirencester Hist.* (Harmer, Cirencester, 1910), pp. 9, 10. |
| 1908. | Under Bingham Cottages. | 39. A pavement. | | Information from Mr. W. D. Moss. |
| 40. *c.* 1876. | Church St. (N. side), then Smith's garden. Belonging to the same group as nos. 34–9. | Tessell. pavement, villa and well. | | Beecham, p. 252, 271, giving date as 1864.[1] |
| | Church St. ('S. side'; so marked on O.S., but probably mistake for 'N. side'). | Inferior floor of late date; under it sculptured stones, pillar bases, &c. Also wells. The inscription on p. 188, and the charm on p. 198, found near here. | | *Bristol and Glouc. Arch. Soc.*, ii (1877), 14. O.S. map. |
| 41. | Victoria Rd. (formerly New Rd.): apparently S. end, between Chester St. and the Avenue (sewerage works). | Remains of floors and foundations. | | Beecham, p. 251. |
| 42. Before 1867. | *Outside the Walls*, Somerford Rd., Highland Cottages, near Chesterton Villas. | 'Relics of a Roman house'. Base and capital of a column. | Said to be still there. | *Journ. Brit. Arch. Assoc.*, xxiii, 291. |
| 43. 1824. | Barton Mill (outside N. end of town). | Mosaic; figure of Orpheus, 25 ft. sq. A Saxon burial inserted under it (seen by myself). | *in situ*. | *Journ. Brit. Arch. Assoc.*, xxv, 103, col. plates; *Cirencester Mus. Guide* (1910), 36; *Gent. Mag.* (1824), i, 454; Buckman (1850), 33, pl. vii; *Bristol and Glouc. Arch. Soc.*, xxxiii, 69, plate. |

[1] *Note to no. 40.* The excavator (Mr. Banks) calls it New Road (i.e. Victoria Road); it is really Church Street, Victoria Road.

Nos. 29, 30, 31. Mr. Cripps marks three tessellated pavements on his plan, on the north edge of Jefferies' Nursery Garden; probably he is, in this, interpreting the marks on Bravender's plan in Beecham, as he has included all Bravender's marks on his plan. Or he may have taken some from Lysons' plan. The 'Leauses', now the site of Nursery Gardens and modern streets on the south side of Lewis Lane, lay between Watermoor Lane and the line of Tower Street produced. Here also perhaps are the tessellated floors noted by Leland as found in a meadow 'in the middle of the old town'.[1]

Atkyns (*Ancient and Present State of Glouc.*, 1712, p. 350) mentions a large hypocaust, 50 ft. by 40 ft., with a tessellated floor, as found in a meadow near the town. This hypocaust is perhaps that referred to also by Aubrey and by Pigot at the end of the seventeenth century (Stukeley, *Itin. Curios.* (1724), p. 63). Rudder (*Glouc.*, p. 346) thinks it was probably the same which was opened up in 1683, and dug up and destroyed in part by a gardener not long after, in Stukeley's time. Stukeley, at any rate, first mentions the site by name (Leauses), recording a fine mosaic pavement, opened in Sept. 1723, with several hypocausts near it (one 16 ft. by 12 ft.), many pieces of pillars, capitals, pilasters, cornices, and much carved stone (*Itin. Curios.*, 1724, i. 62–3). According to Rudder, this floor was reopened in 1780, and the principal hypocaust was planned. It was 32 ft. by 24 ft., and had four arches in the walls. Signs of reconstruction occurred, and pillars were used as hypocaust shafts. (Rudder, *Glouc.*, 346; *Cirencester* (1800), pp. 43 foll., plan; cf. also list, p. 177, no. 32 A.) The walls were of rubble 3 ft. thick, faced with square stones $4\frac{1}{2}$ in. thick. Below the hypocaust floor was another floor, 3 ft. lower; the space between the two was filled with rubbish (*Arch.*, vii, 405 *seq.*). Apparently it is still *in situ*. Plain pavements have frequently been found in the Gardens, while bronze statuettes of Minerva, Diana, Cupid (see pl. xii, p. 202), etc., and stone altars, a colossal head, several capitals (including fig. 16), and other parts of columns, entablatures, etc., and innumerable coins have been turned up at different times. (Lysons' *Reliq.*, ii, p. 10, and *Arch.*, xviii, 124; Beecham, *Cirenc.*, pp. 264, 276; Church, *Catal. of Corinium Mus.* 1910, pp. 14, 15.)

According to *Journ. Brit. Arch. Assoc.*, xix, 101, what was probably the southern and eastern portion of this ground was sold in 1862 for building lots. The subsoil here is 'forest marble clay', 50 ft. thick, lying on oolite freestone, but enough stone was taken out (from a layer 2–10 ft. thick) to build walls and houses. The foundations of a room were also found, partly plastered, and a geometrical pavement.

Mr. F. W. Taylor supplies the following information:

(i) There had not been much building in the north part of the town (i.e. north of the Market Place), but where there had been, he had not known of pavements or buildings, except under Lloyds Bank at the corner of Castle and Silver Streets, where a rounded wall (apse?) had been found.

[1] *Bristol and Glouc. Arch. Soc. Trans.*, xiv, 229; Brayley and Britton, *Beauties of England* (1803), v, 594 note, cited a MS. note referring to a find made in 1562 in a field called Chesterton Farm, apparently in the neighbourhood of 'the Leauses' and Watermoor, of 'several Roman pillars with capitals, variously wrought, besides small fragments of what was then called a bath; but these were removed to the Abbey, but are now lost'. They may have been connected with similar finds made at 'the Leauses' in 1838 and at other times, including the capital mentioned above and on p. 191.

(ii) The depth of Roman finds varied very much, many 8 ft. (in Dyer Street and Cricklade Street); at King Street only just below the surface; not very deep in Brewery Field or Ashcroft. There is a great dip in Lewis Lane, between Tower Street and Oystershell Lane (near the Board School, it is 16 ft.) now filled in.

(iii) The facing stones of the wall (see p. 166) were about 18 in. cube, rusticated or the like, of the fine white oolite which occurs deep in the Querns quarry; when exposed to

Fig. 7. Altar to the Suleviae, found in Ashcroft; now in Mrs. Cripps's Museum; 10 in. wide, 23 in. high.
(*From a photograph by Mr. W. D. Moss, by courtesy of Mrs. Cripps.*)

the air, this becomes very hard, like Painswick stone. Some stones are from Barnsley, but these are not large. Stones out of the wall-towers were used as foundations of the Workhouse section. The wall-facing was laid against a bank of gravel (as near the Workhouse) or of clay and gravel (as in the south-east).

(**9**) *Important single objects, inscriptions, etc.* In 1899, while building two cottages in Ashcroft, Mr. Cripps made a remarkable find of worked, carved, and sculptured stones.[1] They lay near together at no great depth, in 'made

[1] *Proceedings*, xviii, 177 foll.

ground' which seemed not to have been recently disturbed. No Roman or other foundations were near them; if such ever existed here, they must have been robbed by later builders, seeking for ready dressed stones. The discovery comprised nine notable pieces, mostly local oolite (one or two are of Bath stone):

Fig. 8. Relief of the *Deae Matres* in local oolite, found in 1899 in Ashcroft, now in Mrs. Cripps's Museum; 2 ft. 7 in. high, 2 ft. 1 in. wide.
(*Block lent by the Roman Society.*)

1, 2. Two reliefs of the Triad of 'Deae Matres', or Mother Goddesses—one in local oolite, the other in Bath stone (figs. 8, 10).

3. An inscribed altar (fig. 7), dedicated to the Suleviae (spelt here 'Suleae')

by Sulinus, son of Brucetus; he appears also[1] on a Bath inscription (*Corpus Inscr. Lat.*, vii, 37, cf. Dessau, 4660) as setting up an altar there to the Suleviae (Goddesses akin to the 'Deae Matres'), and he describes himself as 'scultor' (that is, 'sculptor'), rather a superior mason than what we should call a sculptor in English.

4. A statuette of a cloaked woman, seated, with fruit in her lap; possibly an isolated 'Mother-Goddess', if one may take a single figure to signify the Triad. (The statues of the Matres were sometimes carved singly, one 'Mother' on each stone, and, though set up in groups of three, the individual figures came to be scattered apart from their special Triad.)

5. Base of a similar statuette.

Fig. 9. Relief of *Deae Matres* found in the Leauses, now in the Bathurst or Corinium Museum; 13 in. high, 12 in. wide.
(*Photo by Mr. W. D. Moss, by courtesy of the Bathurst or Corinium Museum.*)

6. A small female head 'of charming design', $4\frac{1}{2}$ in. from the top of the head to the chin, possibly the head of no. 5.

7. A perfect column, $4\frac{1}{2}$ ft. high, general diam. 17 in.

8. A short column or pedestal, 4 ft. high, diam. $7\frac{1}{2}$ in. —Bath stone.

9. A rectangular pedestal, 42 in. high, possibly intended for an uninscribed altar.[2]

Mr. Cripps suggested that all these pieces belonged to the professional workshop of the mason Sulinus, because they were unusually perfect and free from weathering; they may, it seemed to him, have been specimens which, like modern masons, he kept in his yard, to show the style of his work or the quality of his stone. I should have preferred myself to assign them to an actual temple or shrine of the Suleviae, but it is not easy to be positive. For our purpose the point is of no moment, since it is clear that, if a working mason in Corinium thought it worth while to prepare such pieces as specimens, the worship of the Suleviae must have been fashionable in the town. It has even been guessed that his name, Sulinus, has reference to that worship, but it is not easy, when one thinks the situation out, to see what a personal name of this kind has to do with a trade. One might speculate whether Sulinus got his name because he was born on a day sacred to the Suleviae, or because his ancestors had connexions with the cult; all such is easy to imagine and impossible to prove.

[1] Like the Italian name Solinus, Sulinus is exceedingly rare (indeed, it seems to occur nowhere else); we need not hesitate to identify two men who have the same parentage and bear the same unique name.

[2] W. J. Cripps, *Proceedings*, xviii, 177-84 with figs.

But I would call brief attention to the two pieces found in the yard of Sulinus, which obviously show the 'Deae Matres' or Mother Goddesses, just as they are shown on scores of other reliefs of these deities. One (fig. 8) exhibits the goddesses in singular perfection. We see three figures seated side by side, in the usual frontal attitude; each has on her lap the usual basket of fruits, and each has a clearly characteristic coiffure. The relief is a typical example, save that the goddesses, who are, in general, kindly ladies, exhibit

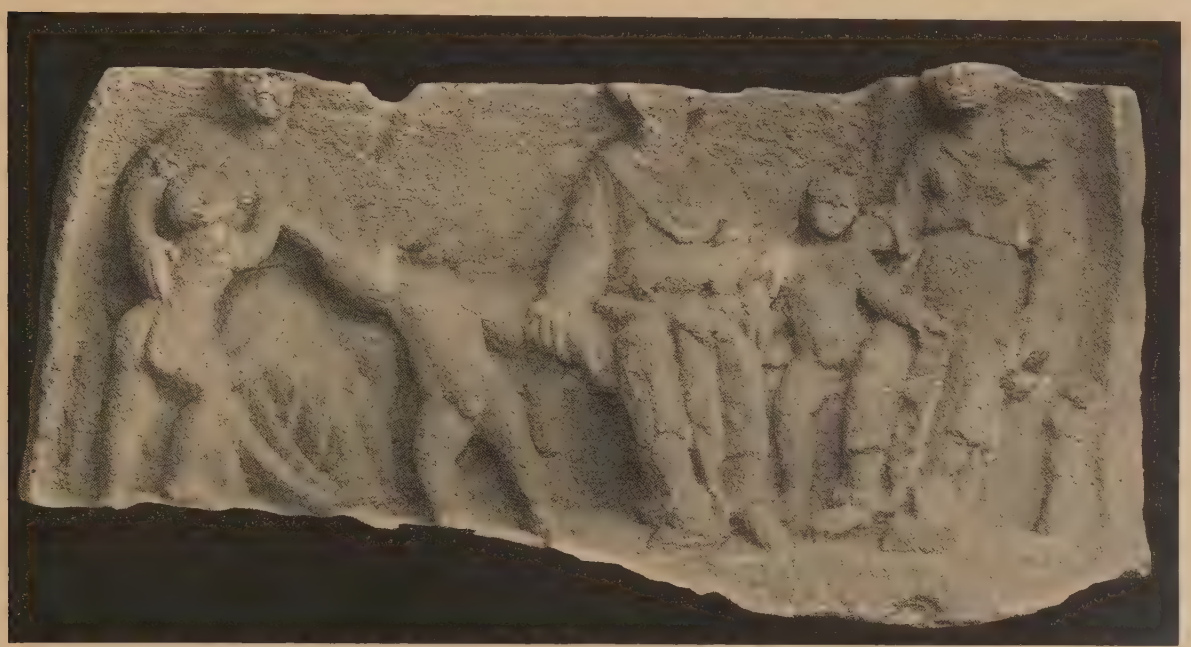


Fig. 10. Relief of *Deae Matres* in Bath stone, found in 1899 in Ashcroft, now in Mrs. Cripps's Museum; 2 ft. 8 in. wide, 1 ft. 4 in. high.
(*Photograph by Mr. W. D. Moss, by courtesy of Mrs. Cripps.*)

here an austerity of face which would daunt the bravest of men. A third, smaller (12 in. wide and 13 in. high) and less striking example, is in the Bathhurst Museum (fig. 9). The cult of these 'Mothers' seems to be by origin Celtic, not German. It occurs often in the Western Empire—most often in northern Italy, south-eastern France, on the west bank of the lower Rhine, and occasionally on the Danube; in Britain it is commonest in the military districts near the Wall of Hadrian, but it occurs in Derbyshire, at Winchester, Bath, London, and Colchester, and in other parts of Gloucestershire.[1] It is connected

[1] See my paper and map in *Archaeologia Aeliana*, xv (1892), 314-40. For the Danube provinces see Ihm in *Bonner Jahrbücher*, lxxxiii, 156; *CIL.* iii, 4766 and 11621; *Jahrbuch für Altertumskunde*, iii (1909), *Beiblatt*, p. 75 a, fig. 38 a. For a recently discovered Scottish example, the only one yet found north of the Tweed, see *Proc. Soc. Antiq. of Scotland*, 1918, pp. 38 ff.

in some way with the less common cult of the Suleviae, but the precise relation is not at all clear.

The other far less well-preserved relief is quite different in style (fig. 10). In it the attitudes of the deities are varied; still more noteworthy is it that the sculptor, with an individuality rare in Roman provincial art, breaks free from the conventional scheme of these reliefs. Nor is even this all. He has not only broken loose from the normal type; he has copied fairly closely a relief at Rome, a scene from the famous *Ara Pacis*, which Augustus set up in B. C. 13—the well-known relief of *Terra Mater* or *Tellus Mater* (fig. 11).[1]

Fig. 11. Relief of *Tellus* or *Terra Mater* from a frieze of the *Ara Pacis*, Rome, now in the Uffizi, Florence.
(*Block lent by Messrs. Duckworth.*)

The Cirencester relief is naturally much less skilfully wrought than the Roman one; but it is remarkable that a Romano-British workman on Cotswold should have been acquainted with, or have cared to copy, a piece of sculpture far away in Rome. One wonders what model or drawing he could have had to work from.

Usually when we meet in a Roman province a direct copy of some bit of classical art, we may suppose that the original had been reproduced in metal-work, for example on an embossed cup, which the sculptor may have had before him,[2] rather than on a less portable model of a stone original. Indeed, the connexion between the designs on Alexandrian silver and on Roman provincial sculpture would, some day, repay a minute study. In this case, however, the British mason seems clearly to have been influenced by a stone relief at Rome;

[1] Admirably described in Mrs. E. Strong's *Roman Sculpture* (1907), pl. viii, p. 42.

[2] That is the case, too, with some details of Samian ware. See a paper by Drexel, *Bonner Jahrbücher*, cxviii, 176.

Corinium must have been in touch with the centre of contemporary civilization, perhaps almost more than Cirencester is to-day,[1] and a knowledge of great works of Roman art at Rome must have been more widely diffused in the Roman empire than is generally supposed. [But see Appendix III by Prof. Rostovtzeff.]

To these structural remains, actually found and proven, may be added a few similar details deducible from *inscriptions* and the like.[2] Of inscriptions, if one includes fragments, sixteen have been recorded from Cirencester itself, besides a few others from its near neighbourhood. Of the sixteen, eight are tombstones. The most noteworthy are two largish sepulchral monuments, bearing reliefs of soldiers; each shows the dead man on horseback, riding over or spearing a fallen barbarian—a common relief on Roman military tombstones.

(1) Stone 7 ft. high, $2\frac{1}{2}$ ft. wide, found August 1835, in Watermoor (*Archaeologia*, xxvii, 211; *CIL.* vii, 66; *Eph. epigr.* vii, p. 280, n. 834): fig. 12.

*Dannicus, e(q)ues alae Indian(ae) tur(mae) Albani, stip(endiorum) xvi, civis Raur(acensis). Cur(averunt) Fulvius Natalis et Flavius? Bitucus, ex testame(nto). H(ic) s(itus) e(st).* The exact reading of the name before Bitucus is doubtful. A rather longer name than Flavius seems needed.

Fig 12. Tombstone found in 1835 in Watermoor, now in the Bathurst or Corinium Museum; 7 ft. high, $2\frac{1}{2}$ ft. wide.
(*Photo by Mr. W. D. Moss, by courtesy of the Bathurst or Corinium Museum.*)

'Here lies Dannicus, soldier in the ala Indiana [a horse regiment, founded by one Iulius Indus, about A. D. 20], in the troop of Albanus; born in Switzerland; 16 years' service. Natalis and Bitucus (his heirs) erected this (memorial), according to his will. He lies here.'

The stone was probably set up about, or even before, A. D. 100, late in the

[1] See a paper by H. S. Jones and myself, *Journal of Roman Studies*, ii, pp. 138 foll., figs. 12-13.

[2] It may be as well to add a caution that Hübner, in the seventh volume of the *Corpus Inscriptionum* (pp. 29-31), mixed up the inscriptions found at Cirencester with those found at Gloucester. This is only one of the innumerable errors which disfigure his volume.

[3] [The two most important cemeteries of Cirencester seem to have been on the south at Watermoor, just outside the wall and close to the so-called Ermine Way, and on the west at the Querns.]

Flavian age (Mommsen, *Gesammelte Schriften*, 1908, v, 385, with plates to p. 353). The Rauraci or Raurici were a Celtic (Helvetian) tribe in north-western Switzerland, near Basel.

Fig. 13. Tombstone found in Watermoor, 1836, now in the Bathurst or Corinium Museum; 7 ft. 5 in. high.
(*Photo by Mr. W. D. Moss, by courtesy of the Bathurst or Corinium Museum.*)

Fig. 14. Tombstone found in Watermoor, 1835, now in the Public Museum, Gloucester; 7 ft. 2½ in. high, 2 ft. 2 in. wide.
(*Photo by courtesy of the Curator of Gloucester Museum.*)

(2) Stone of similar size found in Jan. 1836 near no. 1, in Watermoor (see *Archaeologia*, xxvii, 215; *CIL.* vii, 68): fig 13.

*Sextus Valerius Genialis, eq(u)es alae Thraec(um), civis Frisiaus, tur(ma) Genialis, an(norum) xxxx st(ipendiorum) xx, h(ic) s(itus) e(st). (H)e(res) f(aciendum) c(uravit).*

'Here lies Sextus Valerius Genialis, soldier in the Thracian Horse, in the troop of Genialis; born in Frisia; aged 40; 20 years' service. His heir had this (stone) set up.'

This seems to belong to the same period as no. 1, that is, to the end of the first century A. D. (Mommsen, *Gesammelte Schriften*, v, 386). The man's shield (if shield it be on his left arm) is curious and needs an explanation which has yet to be devised.

(3) A third sepulchral monument of similar size was found at about the same place on 1 July, 1836. It shows in relief a non-military man standing in a long mantle, which falls to his feet; as the inscription indicates, he was a Gaul from near Besançon; he wears what seems to be his ordinary peace costume[1] (*Archaeologia*, xxvii, 217; *CIL.* vii, 69; Mommsen, *Gesammelte Schriften*, v, 386): fig. 14.

*Philus, Cassavi fil(ius), civis Sequ(anus), ann(orum) xxxxv, h(ic) s(itus) e(st).*

'Philus, son of Cassavus, of the tribe Sequăni, lies here: he died at the age of 45.'

The Sequani dwelt in eastern Gaul, in the upper Saône valley, near the modern Besançon, west of the Jura hills, a little south of the Rauraci mentioned above. But Dannicus was a soldier, and came to Britain with his regiment; Philus,[2] son of Cassavus, seems a civilian; he must be counted among the many who, wishful to try the Bath waters or to trade,[3] drifted voluntarily into Britain during the Roman Empire. Possibly Philus, like many Gauls known from Bath inscriptions, was attracted by the fame of the Bath hot-springs; then he wandered less than 30 miles out of his way, to visit the important town of Corinium, which was in close touch with Bath (see below, p. 195). Possibly we might ascribe to such wanderers from Gaul the Cirencester dedications to the 'Suleviae' mentioned above; they occur somewhat seldom in Britain, but are not rare in Gaul.[4]

[1] Possibly this curious cloak may be made of Cotswold wool—a point to which I shall return below.

[2] The name Philus is, of course, Greek (φίλος), but need not be taken to denote slave descent, as Greek *cognomina* often do in the Empire; it must rather be compared with the Greek names of Gaulish potters—Chrestus, Apolaustus, and the like. Such Greek names were not uncommon in the Rhone valley (Narbonese Gaul), and may have spread thence northwards. There was, indeed, near Besançon, a place called 'Philomusiacus'—probably 'the (farm of) Philomusus' (Peutinger Map), a Greek name with a Celtic suffix appended. We may trace here the influence of the old Greek colony at Massilia (Marseilles).

[3] The inscriptions of Bath mention several Gauls who migrated there, doubtless in search of health; such are (1) one Peregrinus, from Trèves, who erected an altar at Bath to a god specially worshipped in the Trèves district; he may have been a civilian; (2) one Rusonia Aventina from the Gaulish district round Metz; (3) one Priscus, son of Toutius, who was born at or near Chartres, and calls himself 'lapidarius'; he apparently, like Sulinus son of Brucetus, came in search of the Bath stone (*Eph. epigr.*, ix, 995).

[4] See Ihm, *Bonner Jahrb.*, lxxxiii, 1–200, and my paper in *Archaeologia Aeliana*, xv, 324 (1892);

One other inscribed piece denotes a still more definite intrusion of continental influences into Corinium. This is a stone pedestal, 17 in. wide and high, inscribed on three neatly panelled and columned sides—the fourth is destroyed—found in 1891 with remains of pavements (see List no. 40, p. 178) in the gardens of 'The Firs', Victoria Road, that is, in the southern half of Corinium, and now in the Bathurst Museum (fig. 15). On the top is a hole for the tenon of a column which once stood on it. The inscription on what was originally the front side reads as follows (the end, which I give in capitals, is much worn, and the surviving letters are doubtful to my eyes, and not easy to interpret):[1]

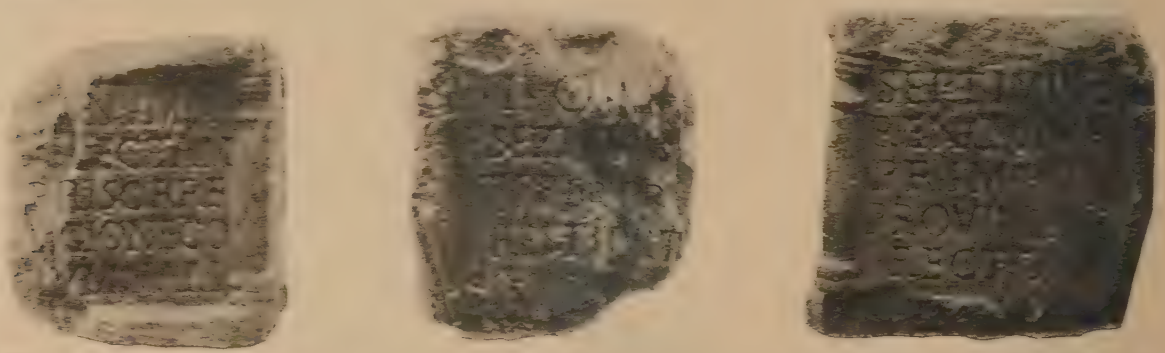


Fig. 15. Three sides of an inscribed column-base or pediment, found at 'The Firs', Victoria Road, 1891, now in the Bathurst or Corinium Museum; 17 in. square.
*Photos by Mr. W. D. Moss, by courtesy of the Bathurst or Corinium Museum.*)

*I(ovi) O(ptimo) m(aximo), L. Septimius . . ., v(ir) p(erfectissimus), pr(aeses) B[r(itanniae) pr(imae)] resti(tuit) C. IVES* . . . (E or F uncertain).

'To Juppiter, the best and greatest, his Excellency L. Septimius (cognomen lost), Governor of Britannia Prima, restored (this monument) . . . .'

The other two surviving sides of the stone, to left and right of this, bear two accentual hexameters, neither very metrical:

(Spectator's left) *[Sig]num et [e]rectum [p]risca regione co[l]umnam*
*Septimius renovat, primae provinciae rector.*

'Septimius, ruler of Britannia Prima, restores this sculpture and the column set up by former religion.'

It is possible that, through a fracture of the stone, a syllable has been lost from the word *regione*; if so, we should probably read *religione*, which should be scanned *religyone* i.e. rēligiōnĕ, as sometimes it actually is scanned in late Latin

an altar dedicated *numini Sulevis* is at Colchester (*Eph. epigr.* vii, 844). The name has nothing to do with that of Sulis, the patron goddess of Bath; anyhow, there seems no reason to think that it has.

[1] Published by me, *Eph. epigr.* ix. 997, and *Archaeologia Oxoniensis* (1894), p. 215; and by Chr. Bowly, *Trans. Bristol and Glouc. Archaeol. Soc.*, xvii, 63.

poetry. Those who keep *regione* render it 'direction'; the words would then mean that the column was set up again, pointing as it pointed before, skywards.[1] In any case, the original monument was a column, and was restored by a Governor of Britannia Prima, by name L. Septimius . . . This dates the stone: the emperor Diocletian, about A.D. 300, divided Britain into four provinces, of which one was styled 'Prima'. As no 'Britannia Prima' existed previously, our inscription is clearly not earlier than about A.D. 300. This is the only reference yet found on any inscription to the Diocletianic division of Britain; it is also the only real clue, which we as yet possess, to the position of any of the Diocletianic provinces of Britain. Hitherto, antiquaries have made bold conjectures about them, but wholly at random. Now, at least, it is clear that Britannia Prima included Cirencester, and while we do not know on which side of the town the province 'Prima' stretched,—whether eastwards to the Upper Thames or, as is perhaps less likely, westwards over Cotswold,—at any rate we know that it was not in Norfolk (where the late Dr. Kiepert put it) nor in the east coast region of the *Yorkshire Post*, 'twixt Trent and Tweed' (where William Harrison placed it in 1577). Further, we can infer from the inscription that Corinium was the 'capital' of 'Prima'; here the governor (*praeses*) had his seat, and that is how he came to restore a monument in the town.

But the stone has two further interests: (1) It records the restoration in the fourth century of a monument originally set up by a *prisca religio*, if *religio* be the right reading. This can only mean that the growth of some new religion (obviously Christianity) had caused the neglect and downfall of an old (heathen) monument, and that some heathen-minded man had set it up again. At once one thinks of the notorious revival of paganism in A.D. 361–3, under Julian the Apostate; he was, no doubt, most active in the eastern empire, but his work had results in the west; where, however, Christianity is generally thought to have spread slower and later than in the east. We may, then, suppose that, in our fourth-century Cirencester, the new Christianity spread far and fast enough to cause shrines of the 'old religion' to be neglected and to fall into decay. As in fourth-century Silchester, with its church and its two little Christian inscriptions, so in fourth-century Cirencester, there existed definite Christianity; if Cirencester could be dug wholly out, as Silchester has been, we should, no doubt, find traces of a church in it, too.

[1] So the late eminent latinist, Prof. F. Bücheler of Bonn, in his *Carmina Latina Epigraphica*, i, no. 277 (Teubner, 1895). As the column could only stand vertically upright, the meaning produced is not very good. Bücheler also read, in the first line *derectam*, to mend the metre. But the metre is hardly worth mending. As I go to press, Professor Rostovtzeff suggests that *prisca regione* might be retained, with the sense of 'its previous place', as if *prisco loco*. That would certainly make good sense. [After seeing the stone and observing that there was just room for two letters, Professor Rostovtzeff thinks that *religione* may stand.]

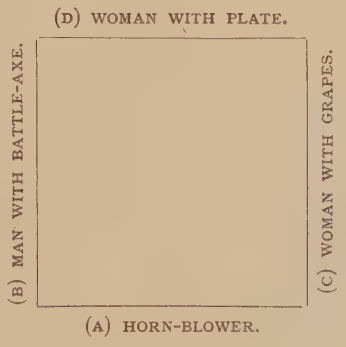
Again, (2) it is hardly possible to doubt that this Cirencester inscription and its column—which has perished, but is attested sufficiently both by the inscription and by the socket in the top of the inscribed stone, which formed

Fig. 16. Composite capital before restoration (cf. Pls. IX and X) found in the Leauses, 1838, now in the 'Abbey' grounds; 3 ft. 5 in. high, 3½ ft. wide at the top from corner to corner, 4½ ft. diagonally; diameter of the base, 1 ft. 11½ in. (*Photo supplied by Mr. W. D. Moss, the owner of the copyright.*)

its pediment or base—belong to a class of monuments styled by German archaeologists *Gigantensäulen* or *Juppitergigantensäulen*, but known to French archaeologists as *colonnes au géant*, or *colonnes à l'anguipède*. Monuments of this class occur mainly in northern and eastern Gaul and in western Germany, and exhibit a definite fashion; the main element in them is a decorated column,

often covered with scales and figured ornament, especially on the column and capital. On the top of the whole structure was set a sculpture of Juppiter, riding, sitting, or standing over a fallen barbarian giant. Normally, the column stands on a square pedestal or base, inscribed, as in this case, with a dedication to Juppiter; often it bears also three (or four) reliefs of lesser gods (usually Hercules, Minerva, Juno, and Mercury).[1] I cannot now enter into the complex problems of the cult to which these monuments belong. It has called into existence a literature of its own, which is hardly represented in our Society's library. Here it is enough to note that the sculptures belong to a strictly provincial, Germanic or Gaulish cult, connected with special parts of the Western Empire, and to note further that no other case of it has yet occurred in Roman Britain. At Cirencester it seems to indicate, like other details mentioned above, a connexion existing in Roman days between southern Britain and western Europe.[2]

Perhaps Cirencester has yielded another trace of the same cult. A large and extraordinarily rich composite capital, Pls. IX, X, and fig. 16, one of the most remarkable capitals in the Roman world, was found in the Leauses in 1838 (see p. 179), and is now preserved in the 'Abbey' grounds close by.[3] It measures at top $3\frac{1}{4}$ ft. from corner to corner, and bears, above the usual acanthus leaves, four heads, one on each side—of (*a*) an old man with wind-driven hair blowing a horn, (*b*) a younger man with a battle-axe, (*c*) a woman with a bunch of grapes, and (*d*) another woman with a platter or dish (?), arranged as shown in the diagram:




The whole resembles composite capitals found at Rome in the arches of Titus and Severus, and in the Baths of Caracalla, which bear similar heads and, indeed, whole

[1] F. Haug, *Westdeutsche Zeitschrift*, x, pp. 9–340; Fr. Hertlein, *Die Juppitergigantensäulen* (Stuttgart, 1910). See also *Journal of Roman Studies*, i, 23 (Mrs. Strong), and *ibid.*, iv, 120 (Adolphe Reinach, one of the very learned archaeologists whom the war has taken away from learning). Dr. Fr. Cumont, the Belgian archaeologist, perhaps the best living judge of such a question, takes these columns to be 'monuments votifs élevés à l'image des . . . Césars, vainqueurs des Germains' (*Musées royaux du Cinquantenaire, Catal. des sculptures*, &c., p. 205, no. 169). See also Espérandieu, *Revue archéologique*, 1912 (ii), 211. A monument relating to barbarians is, of course, appropriate to the age (after A. D. 300) when our column seems to have been set up. But others are much earlier; one (at Mainz) dates from the reign of Nero (A. D. 54–68), an age when the Romans regarded the Germans as formidable: see p. 192, note 6.

[2] As a parallel, note the occurrence on a few British sites of representations of the deities of the eight days of the week, which occur mostly in Britain, and in Eastern Gaul or Western Germany: see my accounts, *V. C. H. Hants.*, i, 308; *Northants*, i, 181.

[3] Buckman and Newmarch, p. 20, foll.; *Gent. Mag.* 1838, ii, 180. The capital has been restored as shown in plates IX and X. Fig. 16 shows it before restoration.

figures, inserted in the ornament.[1] Portions of similar capitals, but much smaller and less rich, have been found in Cirencester, and are now in the Bathurst Museum. These have been compared by one writer with the large capital now before us, but I doubt if they really concern us. However, what seems to be the lower part of a definitely parallel capital was dug up in 1808 in the Leauses, and figured at the time by S. Lysons;[2] its upper part, which would have borne heads, if heads were carved on it, is lost.

I do not much doubt that Mrs. Strong was right in connecting this capital in the 'Abbey' grounds with a *colonne au géant*.[3] I cannot, indeed, offer proof of her view, but it is obvious that (1) there was at Cirencester a *colonne au géant* which would probably have borne a specially decorated capital, and (2) that here is a capital thus decorated.

The interpretation of the four heads is not easy.[4] In respect of almost any quartet of male and female heads in Roman provincial art, one thinks first of the Four Seasons. But I cannot satisfactorily explain these Cirencester heads as the Seasons. The wild-haired old horn-blower might indeed be taken to signify Winter and the winter winds; the lady with the grapes might be Pomona (Autumn). But the suggestion made long ago that the bearded man with the battle-axe is Bacchus seems less attractive, despite the fruit in his left hand; nor do I feel inclined to regard him as Winter with a weapon for getting firewood, since the fruit does not agree, and his axe is ill-suited to cutting firewood. I can offer equally little explanation of the lady (*d*), who faintly recalls a Victory with a small shield, but who rather, with her plate, resembles a scullery-maid, unless indeed the sculptor has misread some figure of Victory with her shield into a woman with a large dish. I have scoured many pictures of British mosaics containing the Four Seasons, but find no exact parallels to our four heads. I am not, however, discouraged by this failure from interpreting the capital as part of a *coloe au génnant*. Several capitals attested by inscriptions as belonging to the cult bear equally irrelevant ornament.[5]

The most striking and the best preserved (indeed, nearly perfect) instance of such monuments is a column erected at Mainz in the reign of Nero, and found there in 1905.[6] This has a very elaborate composite capital, but without figures,

[1] Many are in the Lateran Museum at Rome.

[2] *Archaeologia*, xvii, 124, pl. viii.

[3] *Journal of Roman Studies*, i, 23 note; so previously Hertlein, *op. cit.*, p. 22, note.

[4] Hercules, Minerva, Mercury, Juno do not fit in; otherwise one might think that these gods, absent from the pedestal, were depicted on the capital.

[5] Juppiter column with irrelevant ornament. See references above.

[6] Körber, *Mainzer Zeitschrift des röm.-germ. Central-Museums*, 1909, i, pp. 54–63, and separately (Mainz, 1915); A. v. Domaszewski, *Abhandlungen zur römischen Religion*, pp. 139–48; Dessau, *Inscript. Selectae*, 9235 (*addenda*).

though the drums of the column are richly adorned with very striking reliefs. No doubt our fourth-century Cirencester column was less ornamental and perhaps less inspired with full Roman sentiment than the Mainz specimen, which was set up in the first century in the largest legionary fortress of the Western Empire.

(10) *History of Corinium, coins, pottery, &c.* After this survey of the chief Roman remains of Cirencester, one may try to sum up the history and general character of the place. It is, of course, no more mentioned in classical literature than are other towns in Roman Britain, or, indeed, in most Roman provinces. Still, some sort of history can be made out. Three kinds of evidence help: (*a*) coins, (*b*) datable potters' stamps, and (*c*) the general course of Romano-British history.

(*a*) The Roman coins found in Cirencester are too numerous to catalogue here in full. But it is notable that they include pieces of Augustus, which are naturally rare in this island, and also of Claudius (A.D. 41–54). This suggests that Roman Cirencester began soon after the Claudian invasion in A.D. 43.

(*b*) With the aid of Mr. D. Atkinson, of Brasenose College, Oxford, more lately Research Fellow in Reading University College, and now Reader in Ancient History in Manchester University, I have been endeavouring in recent years to ensure the compilation of a complete and revised catalogue of the potters' stamps on Samian ware found in this country. In connexion with this scheme, Mr. Atkinson and I (Mr. Atkinson doing the chief part of the work), have copied 732 stamps belonging to 312 potters,[1] which have been found in Cirencester, and are preserved there in the collections of Lord Bathurst, Mr. T. B. Bravender, and Mrs. Cripps, to whom thanks are due for their readiness in granting us facilities. Various reasons—for one thing, want of space—combine to make it inexpedient to print this list here, but the mere number of stamps is noteworthy. The Silchester collection in Reading Museum, based on twenty years of minute excavation, 1890–1910, contains rather less than 900 stamps.[2] Cirencester, which has never been excavated, save by chance, supplies 732 examples. Thus the stamps confirm the other evidence, which points to the importance and size of the town in Roman days. The stamps of Wroxeter, if

[1] I may say that the readings have in almost all cases been verified by two pairs of eyes. These little inscriptions are often hard to decipher; it is desirable, wherever possible, to back each reading with two opinions, and very dangerous not to do so.

[2] Not a little Roman pottery has occurred at Silchester and is now in Reading Museum, which was made in the pottery works at Arezzo, and dates from about A.D. 10–15. See my notes in the *Cambridge Antiquarian Society's Communications*, xx, 1917, pp. 56–7, and Oxé, *Archäologischer Anzeiger*, xxix (1914), pp. 61–70. These potsherds, which I imagine reached Britain by way of trade, indicate some form of civilized life in our island about the time of the death of Augustus and the accession of Tiberius (A.D. 14).

one includes those found there in the excavations of 1912–14, with those found previously and preserved in Shrewsbury Museum, amount only to 535, despite the three years of minute excavation.

The details obtained at Cirencester seem to show that the site must have been occupied for some time before A.D. 70 (above, p. 193), but that perhaps the pre-Flavian occupation was not very important. Among the stamps which can reasonably be dated earlier than about A.D. 70, we meet none which could be dated before about A.D. 43, the time of the Claudian invasion; we also miss such early potters as SCOTTIVS, ACVTVS, DAMONVS, and BALBVS, whose names appear at Silchester, London, or Colchester, and their absence suggests not only that Cirencester was not occupied before the coming of the Romans, but that its actual foundation falls rather within the reign of Nero (A.D. 54–68) than within that of Claudius (A.D. 43–54). Like Wroxeter, Colchester, London, and other sites, however, Cirencester seems to have developed markedly in the Flavian age (A.D. 70–95), while, for the second century, the Samian evidence indicates that the town life here probably grew on much the same lines as at other towns in the Midlands.[1]

(*c*) All this accords with the general history of the Roman occupation of southern Britain. It seems fairly certain that Gloucester came within the Roman sphere during the reign of Claudius (41–54), though it did not become a 'colonia' till half a century later (A.D. 96–98). The medieval novelist, Geoffrey of Monmouth,[2] was not altogether amiss when he styled it 'Claudium castrum' or 'Claudiocestria', as did also later medieval chroniclers. Now Cirencester stands on a direct road from south-eastern Britain to Gloucester (p. 165). Its site must therefore have come within the Roman sphere of activity at least as early as did Gloucester. It does not, however, follow that town-life developed at Corinium immediately. As we have seen above, the evidence of the Samian ware suggests that it did not; and one may note a marked contrast between Cirencester and Silchester. Silchester not only had a mint issuing native coins before the conquest of Claudius; it has also yielded an appreciable quantity of Samian or Arretine pottery, dating from as early as A.D. 10–20, which must have reached it by way of trade, and which indicates the presence on the site of a population able to appreciate the fine fabrics of the Arezzo kilns in Italy, and so implies something approaching town-life in Britain. Cirencester can show neither the early native coins nor the potsherds which suggest pre-Roman life at Silchester. How or why Corinium grew, we do not know; but soon after A.D. 70, much Samian was clearly used in it, and we can hardly doubt that a definite settlement had by

[1] For Bronze Cupid in the Ashmolean Museum, Oxford, from Cirencester, see p. 202, below, Pl. viii.

[2] *British History*, iv, 15. Claudius, according to Geoffrey, had a son Glouis, whose name has clearly some relation to the first syllable of 'Gloucester'.

then been formed, with a tendency towards Roman culture. The Flavian age (A.D. 70–95) is the epoch when town-life spread abroad generally in the provinces of the Empire, and not least in Roman Britain. The neighbouring spa at Bath was, no doubt, occupied by the Romans quite as early as Cirencester. Its earliest dated inscription, however, (on a building) belongs to the year 76 (*Eph. epigr.* ix, 996). Then (as we may suppose) some of its buildings were begun or developed, possibly under the encouragement of Agricola. Then, too, it may be that Corinium was first laid out with a town-hall and (if I am right) with a chessboard street-plan. We shall therefore ascribe its infancy, if not to Claudius (A.D. 41–54), at least to Nero (A.D. 54–69), and connect its maturer life with the masculine and vigorous rule of Vespasian (A.D. 69–79).

What manner of town was it which thus arose beside the Churn? What prominent features can be distinguished in it? (*a*) For one thing, in its earlier Roman days it included a military element. Two tombstones, of which I spoke above (pp. 185–6), date from about A.D. 100, and show that two regiments of auxiliary cavalry were awhile posted here—an 'Ala Indiana' and an 'Ala Thracum'. Of these regiments there is no other trace in Cirencester. The 'Ala Indiana' seems, indeed, to have been transferred, in the second century A.D., from Britain to a post on the Danube; but there is no sign that any other military unit took its place. Similarly, at Wroxeter, inscriptions attest the presence of soldiers (legionaries) even earlier than at Cirencester; but they were soon removed to Chester or elsewhere, and Wroxeter remained thereafter a purely civilian town. We may equally suppose, in respect of Cirencester, that when the Cotswold hills grew quiet, the little garrison was shifted to posts where it was more needed. Nothing suggests that Corinium was ever, in the full sense, a fort or fortress held permanently by Roman soldiers, as Caerleon or Chester was held. Cirencester, in short, went through the same development as most of southern Roman Britain. Before the Roman conquest was complete, before the South and Midlands had been fully conquered, troops were needed there. Soon they became superfluous, and were transferred to less peaceful neighbourhoods. We shall not, therefore, look in Cirencester for any 'praetorium' or other building specially characteristic of a Roman permanent military post. Still less would it be reasonable that any of the gates should be called 'Porta Praetoria' or the like. Maybe the 'Ala Indiana' occupied for a while some smallish fort. But its ramparts, like those of most early forts, would perhaps have been of earth, not of stone; its internal structures, too, may well have been wooden, not stone-built: but whatever there was has by now been all built over and effaced in many centuries. If the whole area could be minutely excavated, a skilful excavator might, no doubt, detect the fort by its ditch, or even by the post-holes of its wooden buildings. Nothing of the sort has yet been noted, and, even if

found, such traces would form only a temporary feature of the site in its earlier days. Corinium remained, then, like most of southern Britain, civilian, and free from the incubus of a garrison. If the hillmen on Cotswold ever became unquiet, there was a strong permanent garrison (Legio II) at Caerleon-on-Usk, hardly fifty miles westward, just across the Severn, on the edge of South Wales, ready and able to send a detachment and suppress any disorder.

If, then, it was a civilian town, what sort of a town was it? What was its constitution and government? We may infer from the reference to it in Ptolemy, and from its name, Corinium Dobunorum, that it was one of the tribal capitals of Roman Britain. What these capitals were like, we know from two of them which have been excavated, Calleva Atrebatum or Silchester, and Venta Silurum or Caerwent, the latter situated between the Wye and the Usk, in South Monmouthshire, and much smaller than Corinium. Each of these towns was laid out on a chessboard plan, such as I suggest for Corinium, and the latter pretty certainly was the capital of a tribe or canton of Silures.[1]

That Cirencester was such a tribal capital is not, indeed, proved, but is made credible and probable by the fact that it had a large Basilica (p. 168), indicating some form of municipal administration. In this town-hall we may think that the county-council of the Dobuni met, just as the *ordo Silurum* met in the Basilica at Caerwent, to administer business relating to the tribal area of the Dobuni—Herefordshire, Gloucestershire, and west Oxfordshire—somewhat in the same method as to-day English magistrates meet in the towns of England for local matters at quarter-sessions.

Thus Corinium became a centre for Roman urban life on the eastern slopes of Cotswold. It was, indeed, a low type of urban life, without the full municipal rank implied by the term *colonia*, but it was some small step on the way to the Romanization of Roman Britain. You may ask, To what did it owe its prosperity, a prosperity fully attested by the many coins, &c., found there? This is not quite clear. Leland remarks that in his day (*temp.* Henry VIII) Cirencester rested wholly on the Cotswold wool trade. But I find no evidence that the Cotswold wool industry existed in Roman times—unless we take the odd mantle of Philus (p. 186, fig. 14) to be cloth of local British fabric. Certainly, cloth was about A.D. 300 among the products of Roman Britain, and was sufficiently important to be assigned[2] a fixed price in the Tariff of Diocletian.

[1] Mommsen, writing thirty-five or forty years ago (*Röm. Gesch.*, 1885, v, 174; Engl. trans., *The Provinces of the Roman Empire*, 1909, i, 191), declared that the cantonal constitution was not used by the Romans in Britain, as it was in Gaul. But he wrote before a certain Caerwent inscription was discovered in 1903. See my *Romanization of Roman Britain* (ed. 3), pp. 59–60, fig. 23; *Eph. epigr.* ix, 1012.

[2] *Edict. Dioclet.* xix, 36. Compare *Not. Dignit. Occ.* (Mommsen, 1876) xi, 60, referring apparently to the South Down sheep round Winchester.

In default of wool, it would seem that, like so many towns in the Roman Empire, Corinium flourished on an agrarian basis. It was the centre for a fertile and very prosperous countryside. The many sumptuous country-houses whose ruins have been detected up and down the Cotswold region (p. 164) show how thickly this now somewhat out-of-the-way and neglected region of England was occupied by persons who were clearly educated and civilized. I will not call the Roman Cotswolds the 'Dukeries' of Roman Britain, for such phrases are apt to mislead; but beyond doubt rich men must have been as common as weeds round Corinium during the Roman age.

Of industries connected with the town there is little trace. Indeed, the term 'industry' in reference to ancient history is misleading. It suggests to us the fierce industrial life of to-day, not the slender life of all industry previous to the beginning of modern history about a hundred years ago. When one reads of 'important Roman iron-works' being discovered the other day near Sheffield, 'a centre of our steel industry', it is well to remember that these Roman works were probably about as large as a wayside smithy. I should suspect that the main activities in Corinium were agrarian. However, somewhere near it, tiles, greatly needed in the many Cotswold villas, were made, and in and round the town have been found a number of tiles bearing similar stamps—three or four letters,—of which the first is always T:

T C . M
T P F A
T P F C
T P F P
T P L F

Possibly this T stands for *t(egula)* (tile) or the like, while the other letters are initials or private marks of various brickyards or brickmakers. Where exactly these tiles were made, is not known. There is little clay at Cirencester suited to their manufacture; they suggest an extensive and systematic activity, spreading over most of Cotswold.

So I conclude that, on its business side, Corinium led the comfortable unexciting life of a flourishing country-town, dependent mainly on its weekly or monthly markets, and on the crops grown near it,—unromantic, untroubled by sensational events, and therefore happy.

As to a further point, whether the men of Cirencester spoke Latin, I can find no clear indication. At Silchester and at Caerwent, evidence has occurred that some of the dwellers there could speak and write Latin. From Corinium I can quote only one item which, at the most, may indicate a faint knowledge of Latin. In 1868, a piece of plaster was found in Victoria Road, Cirencester,

which is now in the Bathurst Museum, where I have seen it. It is covered with a red colouring, through which twenty-five letters have been scratched:

R O T A S
O P E R A
T E N E T
A R E P O
S A T O R

'The sower Arepo holds (i. e. guides) the wheels with vigour (or care).' *Arepo* seems to be a Celtic noun, connected perhaps with *arepennis* (modern French *arpent*), a Celtic term for a plot of cultivated land or ploughland (compare Latin *arare*). *Arepo* itself then may mean 'ploughman'. But the inscription has no particular sense; it is just an example of the 'recurrent' verses common in the later Empire, in which the letters could be so disposed that whichever way one read, the result was the same;[1] this was held to savour of magic. Any such scheme of letters was taken to be a charm. Indeed, this is a very well-known charm, used practically all over the world and in all ages from the Roman till to-day. The Cirencester example of it is notable, since it is the only example which is definitely assignable to the Roman age.[2] It would seem that the citizens of Corinium understood magic, even when it involved Latin words.[3]

(**11**) *The end of Corinium.* It remains, after discussing the life of Roman Cirencester, to give it the meed of a burial. Here we approach the dim period that stretches between Roman and English, a period so dark that it is rarely possible to pierce the obscurity which overhangs it. Corinium, as its remains show, was important in the fourth century. It was then *chef-lieu* of a British province, no doubt in sequence to its position as tribal capital of the Dobuni. Then a Roman Governor thought it worth while to restore in it a fallen pagan shrine. Then, too, as many finds of fourth-century coins tell us, money was abundant in it. But I know of no fifth-century remains found on the site, and it is hard to guess whether the town lasted beyond Roman times. In Bath, 30 miles to the south, there is evidence that a rich Roman site was left empty for years after it had ceased to be Roman, and before it became English.[4] That happened

[1] See my notes in *Archaeological Journal*, lvi, 1899, p. 319, and *Journal of Anthropological Institute*, 1899, p. 306 (with illustrations).

[2] An example found near Montélimar, in S. France, has been called Roman by a German scholar (*CIL.* xii, 202), but he had no exact copy. A transcript which I owe to my late colleague, the Rev. T. V. Bayne of Christ Church, Oxford, shows that the stone is medieval work.

[3] See further, *Eph. epigr.* ix, p. 519, n. 1001; Deonna, *Revue des études grecques*, xx, 1907, p. 365; A. H. Sayce, *Recueil des travaux relatifs à la philol. et à l'arch. égypt. et assyr.* xx, 176, and reff. in note 47.

[4] *V.C.H. Somerset*, I. 224.

probably in more Romano-British towns than historians always realize. At Cirencester direct evidence is lacking. Its Saxon remains are, I believe, few, but that proves little. One might argue from the fact that its modern streets do not preserve the lines of Roman streets, that some gap occurred in the continuity of its life. But on other sites, where the continuity is hardly doubtful, the same feature recurs, and, indeed, survivals of this sort are extraordinarily uncertain, and hard to calculate.[1]

Yet, as Sir Arthur Evans pointed out years ago, in no part of England have pre-English legends lingered on so tenaciously as in the land that slopes up westwards from Oxford for 35 miles to the Cotswold Hills. It was here, indeed, that two very eminent scholars—one of them now dead—both afterwards Professors at Oxford and one of them for a while President of the Antiquaries—agreed thirty years ago with a local wizard that he should perform the hardly academic task of raising the devil. The agreement, as far as I remember, was not carried through. But the fact that it should have been planned shows how conservative and old-fashioned is this rather out-of-the-way tract. Here, if anywhere, we might expect to find that Romano-British life survived the Saxon flood.

## BIBLIOGRAPHY

Much has been written about Roman Cirencester and a complete Bibliography of scattered references would be long and tedious. It would begin with chance references in Leland's *Itinerary* dating from the sixteenth century, when Leland saw a fragment inscribed with the letters Pontmax (ed. Hearne, v. fo. 65; cf. Gough's Camden (1806), i, 410), no doubt part of an inscription reciting an emperor's titles (*CIL.* vii, 65). Systematic accounts of Corinium begin with the writings of Samuel Rudder (*History and Antiq. of Glouc.*, Cirencester, 1781), and Thomas Rudge (*Hist. and Antiq. of Glouc.*, 1811), but neither of these is sufficiently detailed to supply quite satisfactory information.[2] The first volume devoted to Corinium in particular is the *Illustrations of the Remains of Roman Art*, by Buckman and Newmarch, London, 1850, a well illustrated quarto with a useful list of Roman coins found in the town, pp. 123 foll.; it is somewhat one-sided, owing to the importance which its authors attached to the technique of mosaic floors, and is hardly up to the level of archaeologists' knowledge of Roman things which was current about 1850. From 1850 till the present day no attempt seems to have been made by any writer to describe systematically the Roman remains of Corinium. A useful catalogue of the remains in the Bathurst Museum was issued by the late Professor A. H. Church (latest edition 1910). Unfortunately it is brief without illustrations, but, as a business-like

[1] See my *Ancient Town-Planning*, pp. 141–2.

[2] Much information with fine coloured plates of mosaics was given by Lysons in his *Reliquiae Britannico-Romanae* (issued 1810 to 1817).

and scholarly pamphlet, it compares not unfavourably with the average of Museum catalogues in this country, and conveys much useful information.

[The last account of Cirencester finds is contained in Mr. K. J. Beecham's *History of Cirencester* (1887). It contains much information about finds which were made in the second half of the nineteenth century, and which are marked on a map, apparently from information supplied by Mr. T. P. Bravender. Additions to both book and map were issued separately in 1910 and 1911, the former under the title *Notes on Cirencester History* (Harmer, Cirencester). Scattered articles and notes are to be found in *Archaeologia, The Proceedings of the Society of Antiquaries, The Bristol and Gloucester Arch. Society Transactions,* and other archaeological journals, the articles of the late Mr. Wilfred Cripps (in *Proceedings of the Society of Antiquaries,* xvii, xviii, and *Bristol and Glouc. Arch. Soc. Trans.* xvii), being amongst the most valuable. A map recording all Roman finds in Cirencester made by him and now in Mrs. Cripps's Museum, has been largely used in this article.]

## APPENDIX I

### NOTE ON THE DERIVATION OF THE NAME CIRENCESTER

*By* W. H. Stevenson, Esq., *M.A., Fellow of St. John's College, Oxford.*

[In the second foot-note to this paper, I said that both ancient evidences and the apparent similarity of Romano-British and modern names suggest strongly that the modern name Cirencester is derived from the Roman Corinium (Dobunorum). There are serious phonetic difficulties in the way of this view, and I am glad to be able to add here an explanation of the whole matter from the pen of Mr. W. H. Stevenson, M.A., Fellow and Librarian of St. John's College, Oxford, who is beyond doubt the highest living English authority on matters of early English place-names. His conclusion, briefly, is, that Cirencester is derived from the Romano-British Corinium, and that certain phonetic difficulties in the way are to be explained by the influence of, or by infection from, the not distant Welsh language. I append here his views in the form in which he has been good enough to draft them for the Society of Antiquaries.]

The instinct of generations of English antiquaries, who have connected the modern name of Cirencester with Ptolemy's Κορίνιον was right—although the somewhat complicated philological laws which justify the identification were unknown to them. *Corinion,* if taken directly into English would, by normal Old English sound-changes, have produced **Koerin,* later **Kerin.* But the form which *Corinion,* whether as a Latin or a Welsh loan-word, would have assumed in O.E. (Old English) would, owing to the *i* of the medial syllable, have been **Kurin*; that, by the working of the O.E. law of *i*-mutation, would have produced in the seventh century *Kyren,* written in O.E. *Cyren.* This form actually occurs in the name of Cirencester in the late MSS. of the Anglo-Saxon Chronicle.

Pogatscher (*Zur Lautlehre der griechischen, lateinischen und romanischen Lehnworte im Altenglischen,* Strassburg, 1888, p. 135) has accordingly derived Cirencester from Corinion in this way. But he has strangely overlooked a well-established law in O.E. which precludes such a derivation. This law is that no *i*-mutated form of a 'back' vowel (*a, o,* or *u*) caused palatalization in early O.E.—in other words *Cyren* from *Curin* must have

commenced in Old and Modern English with a guttural (*K*), and not with the *tch* sound as in *church, churn,* which resulted from this early palatalization. This is why we say *Kent* and not *Chent,* from *Cantium.* (A more exact parallel may be found in *kernel,* from O.E. *cyrnel,* from a pre-historic *kurnilo.*) Now it is quite certain that the initial consonant of the O.E. development from Corinion was palatalized, and that the other consequences which eventually led to the *tch* sound followed. In the course of the tenth century *i* and *y,* which were still distinct vowels in Alfred's time, became confused in writing, and no doubt in speaking. By the tenth century the process of palatalization, which eventually produced the *tch* sound, had long been completed, and a custom arose of writing *cyr* for *cir,* owing to the influence of the following *r,* and hence we get the forms *cyrice,* whence 'church', and *cyrn,* whence 'churn'. Hence the spelling was ambiguous; a man about the year 1000 could not tell from the written forms whether words of this sort began with a *k* or a *tch* sound. He would settle the question from his knowledge of the language: we to-day are thrown back upon the evidence of earlier forms (where they exist), upon later developments in English, or upon the results obtained by comparative philological study. In the case of *churn* we have, apparently, the desiderated evidence in an eighth-century form *cirn* or *cirin,* written *cirm,* in the *Corpus* glossary S 356 (cf. *Epinal* glossary 25 E 15 for the lemma). Fortunately we have the ninth-century form *Cirenceaster* written several times in the Parker MS. of the Anglo-Saxon Chronicle and in the Lauderdale MS. of Alfred's version of *Orosius* (ed. Sweet, p. 238). From this form the natural English derivative would have been *Chirnchester* or *Chirchester.* This is represented by the form *Chirenchestre, Cherinchestre, Chirchestre,* of Laȝamon, *circa* 1200. Corinion was evidently the name of the river upon which the town was situated; this river has come down to us in a correct English form *Churn.* It is recorded as Cyrne (read *Cirn* or *Cyrn*) in twelfth-century copies of charters of 999 and *c.* 1005 (Kemble, *Codex Diplom.* iii, 312; vi, 174), and in the compound *Cirn-ēa* in the Worcester chartulary written within a year or two of the year 1000, in the Cottonian MS. Nero E. I. (Birch, *Cartularium Saxonicum,* i, p. 417; upon this chartulary see C. H. Turner, *Early Worcester MSS.,* Oxford, 1916, p. xxviii), and as *Cyrn-ēa* in a charter of 852 (Birch, ii, p. 60, MS. *circa* 1200). The compound is recorded in the name of two villages on the Churn, North and South Cerney. The river itself is called *Cheern,* about 1480, by William of Worcester, a native of Bristol, in his *Itinerarium* (ed. Nasmith, 1778, p. 280).

It is clear from the preceding that the name of the river and of the town both began in O.E. with *ci,* which, according to rule, developed to *tch.* As this *ci* cannot be derived directly from Corinion, some other explanation of its origin must be sought. This is to be found in early Welsh sound-changes. In that language Corinion would have become *Cerin,* later *Ceren,* through the *i*-mutation and subsequent vowel harmonization (cf. E. Zupitza, in Kuhn's *Zeitschrift,* xxxv, 255; Osthoff, *Zeitschrift für keltische Philologie,* vi, 403, and *Indogermanische Forschungen,* xxvii, 173). This form is recorded in Cair-ceri, the Welsh form of Cirencester, in Asser's *Life of Alfred* (ed. Stevenson, c. 57). The loss of *n* in such a position is not unusual in Welsh (Morris Jones, *Welsh Grammar,* 110, v. 2; 113). As Germanic *e* followed by *i* had been mutated to *i* before the arrival of the English in Britain (K. Luick, *Historische Grammatik der englischen Sprache,* Leipzig, 1914, §§ 190, 213), the change from *Cerin* to *Cirin* must be ascribed

to an English sound-substitution (cf. Luick, § 71, 1); that is, the English having no such combination as *eri* in their own tongue, substituted *iri* by analogy. This seems to be the explanation of the O.E. *Ciren*, from Corinion.

The town-name Cirencester, with the first part pronounced as if it were *syren*, is a modern spelling-pronunciation of a fossilized early spelling preserved in written documents. It arises in the first place from the Norman pronunciation of the English spelling, or from a Norman attempt to represent the English pronunciation, and then from later changes in French pronunciation, by means of which, before the end of the thirteenth century, both members of the compound, *ciren* and *cester*, came to be pronounced with the sound of initial *s* instead of a sound more or less resembling the English *tch* (see R. E. Zachrisson, *Anglo-Norman Influence on English Place-names*, Lund, 1909, pp. 18, 78.). The local pronunciations *Cisiter*, *Ciziter*, *Sister* (R. C. Hope, *A Glossary of Dialectal Place-Nomenclature*, 1883, pp. 20, 94) are derived from later Anglo-French developments of Cirencester represented by William of Worcester's *Cysseter*, *Sysseter* alias *Cyrencestre* (pp. 227, 278, 279, 280, 359). *Cyrcestra*, *Cerencestria*, occur in the early part of the thirteenth century (Stevenson, *Calendar of the Records of the City of Gloucester*, 1893, nos. 323, 324), and the 'Cirecestre', of the same date, in *l'Histoire de Guillaume le Maréchal* (ed. Paul Meyer, line 18,927), may also be cited.

## APPENDIX II

### NOTE ON A FIGURE OF EROS FOUND AT CIRENCESTER (PLATE XII)

*By* H. Stuart Jones, Esq., *M.A.*, *Camden Professor of Ancient History.*

The bronze reproduced from three points of view on pl. XII deserves notice as being one of the best examples of Graeco-Roman art which have been found in Britain. According to a communication made to the Society of Antiquaries in 1767 by the Rev. John Price (who held the office of Bodley's Librarian from 1768 to 1812), and printed in *Archaeologia*, vol. vii (1785), pp. 405 ff. (where the figure is reproduced on pl. XXIX), it was ploughed up in garden ground at 'the Lewses' (see above, p. 179) in 1732. It became the property of Mr. Master, the owner of the ground, and was presented by him to the University of Oxford, as we are told by Rudder, *History of Gloucestershire* (1779), p. 346, who calls it an 'Appollo' (*sic*), and mentions that it was then in the Bodleian Library. From thence it was transferred to the Ashmolean in 1887. The figure is 0·403 m. (16 in.) in height from top-knot to toe, and represents Eros, as we may infer from the small holes in the shoulders for the insertion of wings. It is lightly poised on the toes of both feet, the left leg being withdrawn. The right arm is raised, the left hangs by the side, and each hand held some object. That in the left hand was oblong in section, and was secured by a rivet driven through from the back of the hand. There are no remains of the object contained in the right, but a similar rivet is preserved.

The head is slightly turned to the right, and its gaze is directed upwards. The hair falls in spiral curls on the back and shoulders, and is drawn up in a top-knot from which a single curl hangs over the forehead. The iris of the eyes is inlaid in silver, and the

*Photo. by courtesy of the Ashmolean Museum.*

BRONZE FIGURE OF CUPID

Found in the Leauses in 1732: now in the Ashmolean Museum, Oxford: (16 in. high)

*Published by the Society of Antiquaries of London*, 1920

pupils, which are now missing, were no doubt inserted in enamel or in some precious material. The figure is entirely nude.

The fashion of the top-knot and the fleshy forms of the figure, most familiar in the common type of Harpocrates, point to Alexandria as the home of the type reproduced, although we cannot go so far as to say that the figure was manufactured there: no doubt, however, it was imported into Britain from Gaul, if not from Italy. It has been reproduced by M. Salomon Reinach (*Répertoire de la statuaire grecque et romaine*, ii (1897), pl. 440, No. 6), from the engraving in *Archaeologia*; and in the same work, pl. 435, Nos. 7 and 8, will be found reproductions of two similar bronzes which throw light on the destination of our figure and the significance of its attitude. The first is a figure in the possession of M. Léopold Goldschmidt which was exhibited at the Burlington Fine Arts Club in 1903 and is reproduced in the illustrated Catalogue of the Exhibition, pl. lxi (cf. p. 58). This figure, which was found on the Rhine, was not characterized as Eros, and has a piece of drapery loosely flung round it. The workmanship is inferior to that of our bronze, but the type is unmistakably the same, though the pose of the left hand differs slightly. The figure holds in both hands a long stem ending in a bowl which takes the form of a lotus-flower, evidently a lamp-bowl; the bronze is, in fact, a λυχνοῦχος. M. Reinach places beside it a small bronze in the Naples Museum, reproduced in the *Museo Borbonico*, vol. vii, pl. 15; cf. *Guida illustrata del Museo Nazionale di Napoli* (1911), p. 375, No. 1678 (5008). Here the pose and drapery differ slightly, and the figure wears a Phrygian cap, and has attributes in both hands, but the bowl and stem held in the right are evidently intended for a lamp.

M. Milliet in *Mélanges Nicole*, pl. iii (2), has reproduced the head of this figure (cf. p. 365) in order to illustrate the widely opened eyes (*yeux hagards*) which he finds to be characteristic of Alexandrian art, and endeavours to explain by psychological considerations. In this feature also the Cirencester bronze resembles that at Naples.

The Oxford bronze is much the largest of the three; the Goldschmidt figure is 21 cm. (rather more than 8 in.) in height, and that in Naples, according to the *Museo Borbonico*, measures three palms, i.e. about a foot. It is pertinent to ask whether such a work is likely to have adorned a public or a private building. The site known as 'the Lewses', or 'Leauses', and the finds there made, are treated above by Professor Haverfield. But there is no evidence to determine in what part of it our bronze was found, nor whether, as was once believed, the public baths of Corinium occupied the site: for it is clear that the existence of a hypocaust will not by itself support the weight of any such conclusion. The most that can be said is that we should naturally expect to find other public buildings in the neighbourhood of the Basilica; and the architectural finds, including fragments of columns and capitals, point in that direction. But the bronze might well have served to adorn and illuminate the house of a wealthy citizen.

## APPENDIX III

### NOTE ON THE *MATRES*—OR *NUTRICES*—RELIEF FROM CIRENCESTER

*By* Professor M. Rostovtzeff.

The relief reproduced above (fig. 10), representing the three Mother-Goddesses, surrounded by children, is undoubtedly the most interesting monument in the Museum of Mrs. Cripps. I had often discussed it with the late Professor Haverfield, and in August last had an opportunity of examining it with him in Cirencester. The conclusions at which we then arrived differed in some respects from the view expressed in the article printed above, which was then in proof. As Professor Haverfield had intended to amend his remarks in accordance with this change of view, and indeed, a few days before his sudden death, had taken steps to do so by obtaining more illustrations (figs. 17–20), I feel it a duty to the memory of my dead friend to publish the arguments which induced him to modify his opinion.

Undoubtedly, the relief represents the usual group of the three Celtic Mother-Goddesses, the goddesses of the creative forces of the earth. This is attested by the number of the goddesses represented, by the fruit and the kid in the lap of the central figure, and by the association of the goddesses with children. But the group differs sharply in composition as well as in religious idea from the usual representations of the Celtic goddesses. It is well known that the common scheme of representation of the three *Matres* is very plain and archaic in its main features, as, for instance, in the Cirencester monuments published above (figs. 8, 9). The goddesses are always shown seated in a frontal position, clad in Celtic dresses, and holding in their laps fruit, cornucopiae, dishes, &c. Sometimes shells indicate their close connexion with water. The austerity and the archaic character of the composition remain unchanged, even when one of the figures holds a baby, usually swaddled, instead of fruit (see p. 183). The introduction of the baby is an attempt to emphasize the chief quality of *Deae Matres* as goddesses of creation, goddess-mothers.[1]

Our relief is quite different. The old scheme is retained in that the three goddesses are seated in a frontal position. But the whole treatment of the figures and the whole spirit of the group are entirely altered. The archaic and ritualistic features have completely disappeared, and instead of them we have a lively and skilfully arranged scene, where all the figures are co-ordinated with one another to form an artistic whole. The central figure is enthroned majestically, in frontal position; she holds on her lap a heap of fruit and a pretty kid in a very natural posture—products of the earth and of the flocks. With her hand she restrains a nude boy, about seven or eight years old, who forms one group with the goddess to the left of the central figure. This goddess has the same dignified, matronly character as the central figure. But if we may give to the latter the name of *Tellus Mater*, the second figure must obviously be termed *Dea Nutrix*—the Nurse-

[1] It is worth mentioning that in the *Matres* reliefs of Gaul the goddess with the child is usually to the left of the central figure. See Espérandieu, *Recueil général des bas-reliefs &c. de la Gaule romaine* III, 1831 (Autun), 2081 (Beaune), IV, 3377 (Vertault); sometimes, as in some of the British reliefs, she is herself the central figure; see *ibid.* III, 1742 and 2064.

Goddess. She sits in frontal position; before her, on the left, is another nude boy, turning to the right, whom she embraces with her right hand. The boy clasps her right breast with both hands and is sucking eagerly. On the other side of the goddess stands another boy, also nude, in frontal position. He stretches his right hand towards the second breast of the goddess, evidently asking for food. The central figure restrains him gently; she holds his left arm, and draws him towards herself. Between her and the third goddess, on her right, is another boy, also in frontal position. The third goddess is putting her right hand kindly on the right shoulder and arm of the boy, apparently to prevent him from seizing the fruit which lies on the lap of the central figure. It should be noticed that, so far as can be seen, the three goddesses wear, not Celtic, but Roman dress. It is not

Fig. 17. Relief of *Nutrices Augustae*, found in 1911 near Poetovio (Pettau on R. Drave, Styria), now in Marburg Museum. 45 cm. wide, 43 cm. high.

Fig. 18. Relief of *Nutrices Augustae*, found in 1901 near Poetovio (Pettau on R. Drave, Styria), now in Pettau Museum. 34 cm. wide, 33 cm. high.

easy to date the monument, as the heads of the three are only partly preserved, and we cannot definitely determine the type of their head-dresses. But to judge from the fragment of the head-dress and the style of the relief, the monument belongs to the second century A. D., and probably to the second half of the second century.

The foregoing description shows that the whole artistic structure of the monument has very little in common with the usual *Matres* reliefs. This can be explained only by some strong influence exerted from outside, with which I will deal later. Not only is the artistic treatment of the monument peculiar, but the chief religious idea has also undergone a great change. In the figure on the left we have a personification not of the Earth-Mother, but of the Earth-Nurse; the central figure, which represents the incarnation of the productive forces of the earth, is attended by two goddesses, incarnating the nursing forces of nature. This recalls some very interesting Celtic monuments in the Danube

region, monuments devoted to the cult of the *Deae Nutrices Augustae.* These reliefs with Latin inscriptions, and representations of the *Dea Nutrix* or *Deae Nutrices* (figs. 17–20) were found mainly during the excavations at Poetovio (Pettau) on the Danube. They belonged to the lately excavated sanctuary of the goddesses.[1] Unfortunately the monuments bear no definite dates, but the head-dresses of the goddesses on the earliest of them, the resemblance of certain of the female heads to the portrait of Faustina Junior, and the style of some of the sculptures suggest that the sanctuary was built in the second half of the second century, and existed all through the third century.

Though the general composition of most of these reliefs differs greatly from the monument of Cirencester, a few striking features are common to both. The reliefs at

Fig. 19. Relief of *Nutrices Augustae*, found in 1895 near Poetovio (Pettau on R. Drave, Styria), and now in the Joanneum Museum, Graz. 33 cm. wide, 30 cm. high.

Fig. 20. Relief of *Nutrices Augustae*, found in 1914 near Poetovio (Pettau on R. Drave, Styria), and now in a Mithraeum there. 69 cm. wide, 47½ cm. high.

Poetovio are strongly influenced by Greek votive reliefs representing a θεὰ κουροτρόφος and her worshippers. We have always one goddess nursing a child, and one or two worshippers approaching her with offerings. The old composition of the *Matres* reliefs is dropped and replaced by the Greek scheme. But some familiar features remain: first, the tendency to group three figures together; secondly, the character of the offerings,—almost always fruit on a large dish carried by the worshipper on the head; the inscription invariably speaks of *Deae Nutrices*, not *Dea Nutrix*, although on the relief only one goddess is shown. This proves that the original design had three goddesses, but that under the artistic influence of Greek votive reliefs the number was reduced to the single figure of a nursing goddess. It is as if the artist had cut off one figure of the relief of Cirencester, and had surrounded her by worshippers instead of her companion-goddesses, giving to these worshippers the attributes of the companion-goddesses of the original.

[1] See K. Wigand, *Jahreshefte des Oesterreichischen Archäologischen Institutes*, 1915 (xviii), 189 foll., from which are taken figs. 17–20, kindly procured by Prof. Dr. Emil Reisch of Vienna, Director of the Austrian Archaeological Institute, at Prof. Haverfield's request.

To put it briefly, the cult of the *Nutrices Augustae* seems to be a modification of the old cult of the *Deae Matres*, a modification introduced by the same external influence which has also modified the form of the *Matres* cult in Britain. This view is corroborated by certain coincidences in the treatment of the chief figure on the *Nutrices* reliefs with the treatment of the figure of the goddess-nurse on the Cirencester monument. It is noteworthy that at Poetovio the children are sometimes not babies, but comparatively grown-up boys (figs. 17–20 and Wigand, *op. cit.*, figs. 103, 104); secondly, that they are mostly male, as the dedicators are exclusively men; and thirdly, that occasionally the composition of the group of the goddess and the children is the same as in the Cirencester relief (see especially fig. 18).

But of what kind was the influence to which I allude, and how was it produced?

Let us examine more closely the artistic character of the relief of Cirencester. The skill displayed in the artistic treatment of our relief suggested to Professor Haverfield that the artist had had before his eyes a monument which was a copy of some parts of the *Ara Pacis* built by Augustus on the Field of Mars in Rome. This suggestion is very attractive. The cult of the *Pax Augusta* spread widely in the provinces, and it is possible that altars consecrated to the *Pax Augusta* were built in some Italian and provincial towns (as in fact they were in Carthage and in some Italian towns).[1] A revival of the cult at the time of Vespasian might have produced in the provinces copies of the temple built by him in Rome, and of its sculptures. Unfortunately, however, we know but little of the sculptural decorations of the *Forum Pacis*, and we have no right to suppose that the Flavian artists, skilful and creative as they were, contented themselves with reproducing some parts of the sculptures of the *Ara Pacis* of Augustus. Moreover, I doubt whether such copies of buildings and sculptures connected with the cult of *Pax Augusta* could have reached Britain,—which was the remotest province of the Roman Empire, only lately conquered, and where civilized life had just begun to develop—as early as the first century A.D. And no traces of a later cult of *Pax Augusta* can be found in our literary or monumental evidence.

*A priori*, therefore, an influence exerted in Britain by Roman monuments consecrated to *Pax Augusta* does not seem very probable. And a comparison of the figure of *Tellus Mater*[2] on the *Ara Pacis* (fig. 11) with our Nursing Goddess does not suggest any direct relation between the monuments. On the knees of the *Tellus Mater* in the reliefs at Florence and Carthage two babies appear; neither of them is actually at the breast; that on the right only asks for food. This composition is not at all the same as that of the Cirencester figure described above, where boys and not babies are represented, and where one of the boys is sucking the breast of the goddess. Again, the boys of the Cirencester relief are standing near the goddess and not sitting on her knees. Further, the whole

[1] See Van Buren, *Journal of Roman Studies*, III (1913), 134 foll.

[2] I must insist on this denomination of the central figure of the *Ara Pacis* relief, though Mr. Van Buren proposes to recognize in it the personification of Italy, cf. Sieveking in *Berliner philologische Wochenschrift*, 1917, 1249 foll. Mr. Van Buren has omitted one striking parallel to the figure of the *Ara Pacis*—the coins of Hadrian, Faustina Junior and Commodus, representing the Earth and inscribed *Tellus stabilita*. See especially the medallion of Antoninus Pius in Gnecchi, *I Medaglioni romani*, II, pl. 54, 7.

idea of the two reliefs is different. On the *Ara Pacis* relief *Terra* or *Tellus Mater* personifies not merely the productive forces of nature—fruit and children—but also agricultural work; the bull and sheep under her feet typify agriculture and cattle-breeding. The leading idea of the Cirencester relief is the productive and nursing forces of nature alone. I see therefore no close connexion between the two monuments, and cannot suppose a direct influence of the first on the second.

Much closer is the relation which our monument bears to another group of Roman monuments of a later date. I mean the group connected with the cult of *Fecunditas Augusta*, a deity personifying the fecundity of Roman empresses. A temple was built to this goddess by Nero after the birth of his child by Poppaea. The cult of *Fecunditas* developed more particularly during the reigns of Antoninus Pius and M. Aurelius. Faus-

Fig. 21. Casts of coins of Lucilla, Faustina Junior, and Julia Domna, with the figure of *Fecunditas Augusta* on the reverses, from the British Museum and the Cabinet des Médailles of Paris.

tina, the wife of Antoninus, and still more Faustina Junior, the wife of M. Aurelius, and Lucilla, the wife of Lucius Verus, and later on Julia Domna were celebrated for having large families, and were represented on coins under the aspect of a nursing goddess called *Fecunditas Augusta*, surrounded by children. There are two distinct varieties—a goddess standing with two children in her arms and two others at her feet, and a seated goddess nursing a boy, and accompanied by two girls.[1] The composition of the latter type is very

[1] On the cult of *Fecunditas Augusta* see Roscher in Roscher's *Lexikon*, s. v.; Stevenson, *Dict. of Roman Coins*, s. v.; Daremberg et Saglio, *Dict. des Antiq.*, s. v. For the coins see Cohen (2nd ed.), II, p. 429, no. 205, and also Gnecchi, *I Medaglioni*, I, pl. 46, 7 for Faustina Senior; III, p. 143 foll., 93–104 (standing type) and 104–106 (seated type), and also Gnecchi, I, pl. 67, 2 and 69, 8 for Faustina Junior; III, p. 216, 18-24 (seated type) and 25-26 (standing type) for Lucilla; IV, p. 109, 39–40 and 45 (standing type) and 41–44 (seated type), and also Grueber, *Roman Medallions in the British Museum* (pl. xxxvii) for Julia Domna.

similar to that of our Cirencester monument, and the similarity is much greater than that of the *Ara Pacis* figure to the Cirencester figure. In both we have a nursing goddess, in both there is a sucking boy, not a baby, while sometimes there is a group of three or more children surrounding the goddess, and sometimes one of the children stretches its right hand towards the knees of the mother.

The artistic conception of the seated figure of *Fecunditas Augusta* may doubtless be connected with the type used for the figure in the *Ara Pacis*, but it represents a further evolution of the leading idea of the Augustan figure, in the sense that *Tellus Mater* or *Terra Mater* becomes a *Dea Nutrix*, a personification of the peculiar idea of the fecundity of women as mothers, a goddess κουροτρόφος such as the old Greek and Oriental divinities, symbols of the prolific fecundity of women. The same idea caused the modification of the cult of the *Matres* among the Celtic tribes on the Danube and in Britain. That is why I think that the modification mentioned above, in the Roman Celtic provinces was due to the increased importance attached to the cult of *Fecunditas Augusta* in Imperial Rome.

Wigand is disposed to think that the epithet *Augustae* in the composition *Nutrices Augustae* has no importance. I, on the contrary, am inclined to believe that the transformation of the *Deae Matres* into *Deae Nutrices Augustae* was due to the influence exerted on the provincial cult by the Roman worship of the prolific powers of the empresses, and therefore that the epithet *Augustae* emphasizes the link between the Roman and the Celtic cult. This may explain the fact that the cult of the *Nutrices Augustae* appears for the first time on the Danube in the second half of the second century A. D., and the circumstance that many heads of the best reliefs have a striking resemblance to Faustina Junior. It also explains the transformation of the *Matres* cult in Britain, a transformation which took place in the second half of the second century A. D.

It is possible that the Roman cult of *Fecunditas Augusta*, which flourished in Rome for about a century, spread into the provinces, as the cult of *Pax Augusta* had done before it, that temples and altars to *Fecunditas Augusta* were built in the provinces, and that under the influence of these temples and altars, which were probably adorned with sculptures, the loyal provincials modified their old cults and monuments to suit the new idea.

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